

BIHAR AND ORISSA DISTRICT GAZETTEERS

PALAMAU

BY

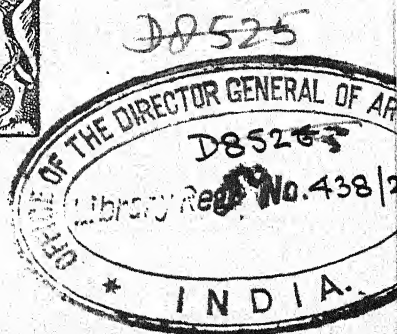
L. S. S. O'MALLEY, I.C.S.

REVISED EDITION

BY

P. C. TALLENTS, I.C.S.

30348



PATNA

SUPERINTENDENT, GOVERNMENT PRINTING, BIHAR AND ORISSA

1926.

**CENTRAL ARCHAEOLOGICAL
LIBRARY NEW DELHI**

Acc. No. 30348

Date 19.12.57

Call No. 2910.3095416G
B.O.D.G. / fa

**PRICED PUBLICATIONS OF THE GOVERN-
MENT OF BIHAR AND ORISSA CAN
BE HAD FROM—**

IN INDIA.

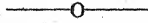
**The Superintendent, Government Printing, Bihar and Orissa,
Gulzarbagh, P. O.**

- (1) MESSRS. THACKER SPINK & Co., Calcutta.
- (2) MESSRS. W. NEWMAN & Co., Calcutta.
- (3) MESSRS. S. K. LAHIRI & Co., College Street, Calcutta.
- (4) MESSRS. R. CAMBRAY & Co., 6 and 8-2, Hastings Street, Calcutta
- (5) MESSRS. THOMPSON & Co., Madras.
- (6) MESSRS. D. B. TARAPOREVALA SONS & Co., 103, Meadow Street,
Fort, Post Box No. 18, Bombay.
- (7) MESSRS. M. C. SIRCAR & SONS, 75, Harrison Road, Calcutta.
- (8) PROPRIETOR OF THE NEWAL KISHORE PRESS, Lucknow.
- (9) MESSRS. M. N. BURMAN & Co., Bankipore.
- (10) BABU RAM DAYAL AGARWALA, 184, Katra Road, Allahabad.
- (11) STANDARD LITERATURE Co., LTD., 13-1, Old Court House Street,
Calcutta.
- (12) MANAGER OF THE INDIAN SCHOOL SUPPLY DEPOT, 309, Bow Bazar
Street, Calcutta.
- (13) MESSRS. BUTTERWORTH & Co., LTD., 6' Hastings Street, Calcutta.
- (14) MESSRS. RAM KRISHNA & SONS, Anarkali Street, Lahore.
- (15) THE OXFORD BOOK AND STATIONERY COMPANY, Delhi.
- (16) MESSRS. DAS BROTHERS, Nauzerkatra, Patna City.

IN ENGLAND AND ON THE CONTINENT.

- (1) FROM THE OFFICE OF THE HIGH COMMISSIONER FOR INDIA
42, Grosvenor Gardens, London, S. W. 1, or
- (2) ANY BOOKSELLER.

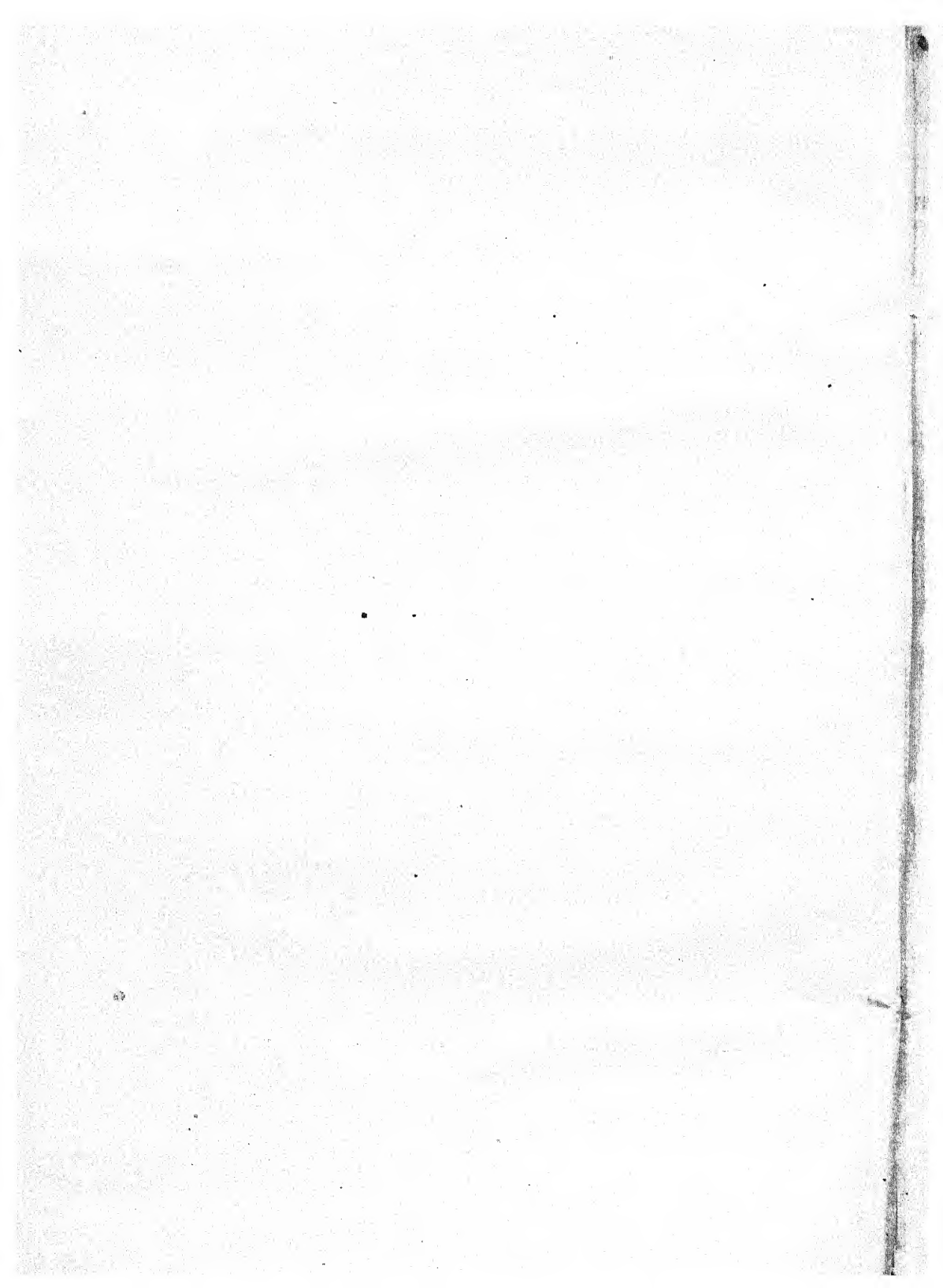
PREFACE TO THE FIRST EDITION.



PALAMAU occupies a somewhat unique position among the districts of Bengal. It is the youngest district in the province, having been part of the Lohardaga district until 1892; and it has been characterized as the driest and probably the poorest district in both Bengal and Eastern Bengal. Five districts only surpass it in size; on the other hand only three districts have fewer inhabitants, and nowhere, except in Angul, is the density of population so small. Ethnologically, it is a kind of neutral ground between the tracts which still form the home of aboriginal tribes and those inhabited by people of Aryan descent; its people, their manners, customs, and land tenures are different both from those of Chota Nagpur proper and from those of Bihar. Physically, it is a land of hill and jungle interspersed with picturesque valleys and ravines, which to the north merge into a level plain along the banks of the Son. It is one of the most beautiful districts in the province, and a country which wins the affections of every officer who serves in it.

The account contained in this volume has been compiled mainly from the Statistical Account of Bengal, Vol. XVI, by Sir W. W. Hunter, from the Reports on the Settlement of the Government Estate by Mr. L. R. Forbes and Mr. D. H. E. Sunder, and from materials supplied by the local officers. I desire also to acknowledge gratefully the ready and cordial assistance given by Mr. F. F. Lyall, i.c.s., who has kindly revised the proofs and made many valuable additions, and to express my thanks to Mr. T. S. Macpherson, i.c.s., for his careful and hearty co-operation.

L. S. S. O'M.



PREFACE TO THE SECOND EDITION.

THE first edition of the Palamau District Gazetteer being out of print, and a quantity of fresh information having become available as the result of the survey and settlement and of the two censuses of the population that have taken place since the first edition was issued in 1907, it has been decided to revise as well as reprint the book. The second edition has been prepared on the same lines as the first, but certain statistical information is now given in tables at the end of the Gazetteer itself which was previously relegated to a separate volume.

I am much indebted to Mr. J. P. J. Elmes, I.C.S., Deputy Commissioner of Palamau, for the assistance he has readily given in the preparation of this edition.

P. C. T.

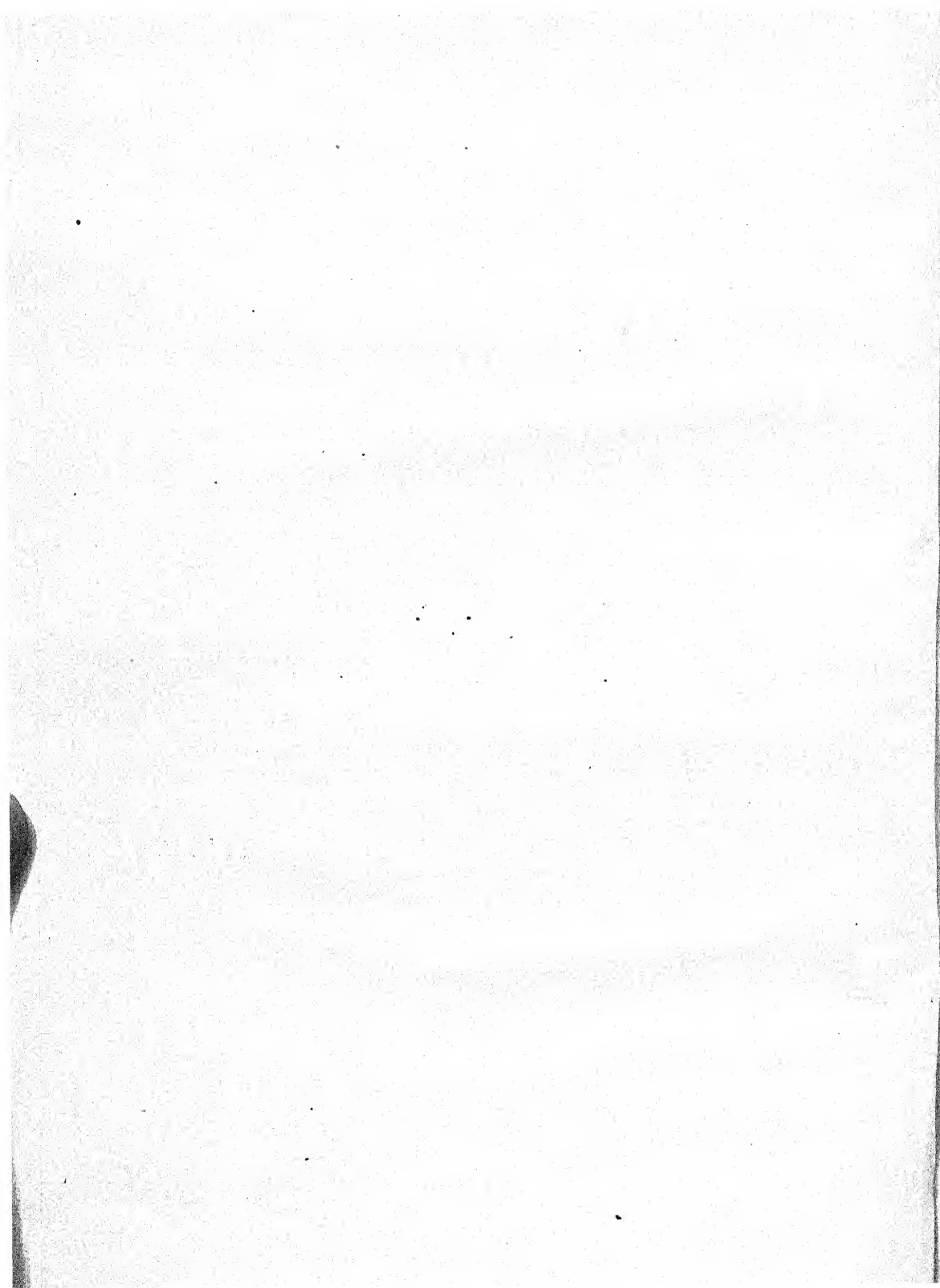


TABLE OF CONTENTS.

CHAPTER I.

PHYSICAL ASPECTS.

PAGE.

General description—Origin of name—Boundaries—Configuration—Natural divisions—Scenery—Hill system—Rivers—The Son—The Kanhar—The Koil—The Auranga—The Amanat—Other rivers—Geology—Botany—F a u n a—Game birds—Fish—Climate—Rainfall—Temperature and humidity	1
---	---

CHAPTER II.

HISTORY.

Early history—The Chero conquest—The Chero Raj—Muhammadan invasions—Invasion of Shaista Khan—Invasion of Zabardast Khan—Invasion and conquest of Daud Khan—Muhammadan rule—Intervention of the British—Settlement by the British with Gopal Rai—Settlement with Churaman Rai—Early British administration—The Indian Mutiny—Formation of the district of Palamau ...	19
--	----

CHAPTER III.

THE PEOPLE.

Growth of the population—Density of population—Migration—Towns and villages—Language—Religion—H i n d u s—The Baiga—The Dihwar—The Ojha—Animists—Muhammadans—Christians—Castes and tribes—Bhuiyas—Ahirs—Kharwars—Bhogtas—Kahars—Dosadhs—Chamars—Brahmans—Rajputs—Koiris—Aboriginal races—Oraons—Cheros—Korwas—Mundas—Bhuinhars—Parhaiyas—Nagesias—Birjias—Villages and houses—Furniture—Dress—Food ...	42
--	----

CHAPTER IV.

PUBLIC HEALTH.

Vital statistics—The influenza epidemic of 1918—Principal diseases—Fever—Cholera—Bowel complaints—Plague—Other diseases—Small-pox and vaccination—Medical institutions	71
--	----

CHAPTER V.

FORESTS.

General remarks—Reserved forests—Northern Range—Southern Range—Latchar Range—Protected forests—Administration—Protection—Minor produce—Bamboos—Communications—Labour supply—Prospects—Agriculture—Private forests ...	78
---	----

TABLE OF CONTENTS.

CHAPTER VI.

AGRICULTURE.

	PAGE.
Cultivated area—Distribution of rainfall—Irrigation—Kararbar channel—Soils—Classification of lands—Areas under different crops—Principal crops—Rice—Gram—Maize—Barley—Wheat—Marua—Other cereals—Oil-seeds—Sugarcane—Cotton—Vegetables and fruits—Mahua—Other jungle fruits—Extension of cultivation—Beora cultivation—Loans—Cattle	92

CHAPTER VII.

NATURAL CALAMITIES.

Liability to famine—Famine of 1869—Famine of 1874—Famine of 1897—Famine of 1900—Scarcity of 1919—General observations—Son flood of 1923	107
--	-----

CHAPTER VIII.

RENTS, WAGES, AND PRICES.

Old systems of rent assessment—Fair rent settlement—In Mahuadani—In the Government Estate—Produce-rents—Commutation of produce-rents—Resources of the agricultural population—Relations of landlords and tenants—Co-operative movement—Indebtedness—Trees—Mahua trees—Lac-bearing trees—Khair trees—Silk—Wages—Kamizuti—Begari—Prices	121
--	-----

CHAPTER IX.

OCCUPATIONS, MANUFACTURES, AND TRADE.

Occupations—Agriculture—Industry—Weaving—Iron smelting—Coal-mining—Daltonganj coalfield—Hutar coalfield—Auranga coalfield—Karanpura coalfield—Other minerals—Cement—Commerce—Markets—Fairs—Professions—Other occupations—Manufacture of catechu—Lac cultivation—Silk raising	136
---	-----

CHAPTER X.

MEANS OF COMMUNICATION.

Development of communications—Roads—Principal roads—Ferries—Communication by water—Railways—Motor services—Post offices—Telegraph offices	146
--	-----

CHAPTER XI.

LAND REVENUE ADMINISTRATION.

The parganas, tappas, and revenue thanas—Pargana Palamau—The Government Estate—Mr. Forbes' settlement—Mr. Sunder's settlement—Settlement of 1913-20—Rent of trees—The jagirdars—The ijaradars—Orders of 1895—Present-day tenures—Untari Estate—Pargana Belaunja—Pargana Japla—Pargana Tori—Extension of Government intervention—Revenue-paying estates and revenue-free properties—Local cess—Encumbered estates	152
---	-----

TABLE OF CONTENTS.

iii

CHAPTER XII.

GENERAL ADMINISTRATION.

PAGE.

Administrative staff—Revenue—Excise—Land revenue—Local cess—Stamps—Income-tax—Registration—Administration of justice—Crime—Civil justice—Police—Village chaukidars— Ghatwals—Jail	163
--	-----

CHAPTER XIII.

LOCAL SELF-GOVERNMENT.

The District Board—Unions—Village Administration Act—Dal- tonganj municipality—Representation in the provincial Council	169
---	-----

CHAPTER XIV.

EDUCATION.

Literacy—Educational institutions—Secondary schools—Primary schools—Training schools—Girls' schools—Hostels—Educa- tion by religion—Inspecting staff	172
--	-----

CHAPTER XV.

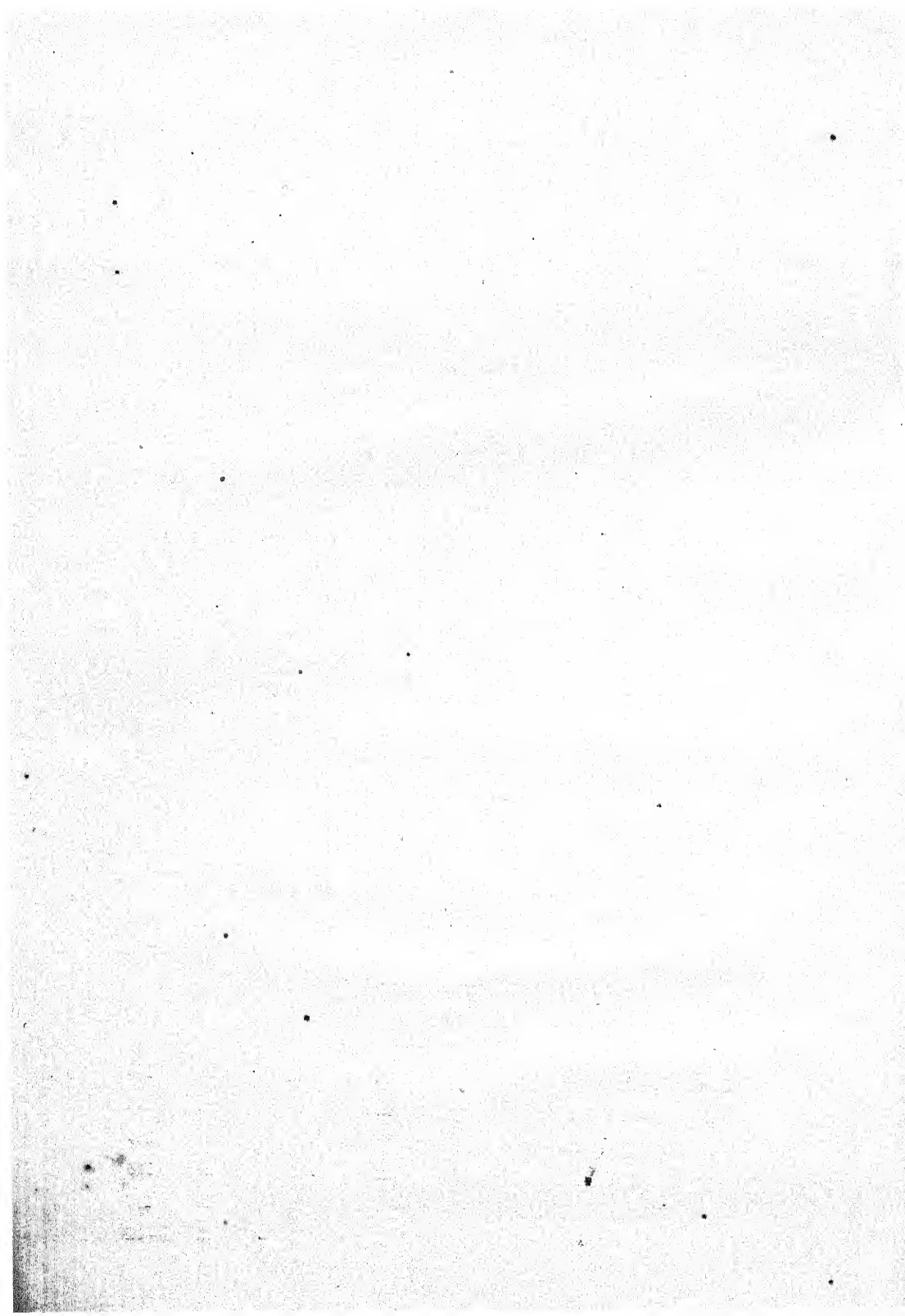
GAZETTEER.

Alinagar—Amhar Tappa—Balumath—Baresanr Tappa—Bari Tappa—Barkol Tappa—Belaunja Pargana—Bhandaria— Bhaunathpur—Bisrampur—Chainpur—Chandwa—Chhattar- pur—Chhechhari Tappa—Daltonganj—Deogan—Dhurki— Durjag Tappa—Duthu Tappa—Garhwa—Garu—Goawal Tappa—Haidarnagar—Hariharganj—Herhanj—Husainabad— Hutar—Jaipur—Jalpa—Kanri—Kechki—Kerh—Khaira Tappa—Kot—Kumandih—Kutku—Ladi—Lat—Latehar— Lesliganj—Mahuadanr—Manatu—Mankah—Mankeri Tappa —Nagar Untari—Netarhat—Nawa—Palama—Palamau Pargana—Panki—Patan—Pundag Tappa—Rajhara—Ranka —Rud—Satbarwa—Shahpur—Sima Tappa—Sirhe Tappa— Sonpura—Taleya Tappa—Tappa Tappa—Tori Pargana— Untari	175
--	-----

TABLES.

PAGE.

TABLE I.—Arōa and Population	193
„ II.—Religion and Literacy	194
„ III.—Birth and Death-rates, and Causes of Death	195
„ IV.—Prices Current (Retail)	196
„ V.—List of Markots	197
INDEX	i—xii



GAZETTEER OF THE PALAMAU DISTRICT.

CHAPTER I.

PHYSICAL ASPECTS.

THE district of Palamau, which forms the north-west corner of the Chota Nagpur division, lies between 23°20' and 24°39' north latitude and between 83°22' and 85°00' east longitude. It contains an area of 4,916 square miles and a population, according to the census of 1921, of 733,394 persons. The principal town and administrative headquarters is Daltonganj situated on the Koil river in 24°3' N., and 84°4' E., which was founded by Colonel Dalton, Commissioner of Chota Nagpur in 1861.

GENERAL
DESCRIPTION.

The origin of the name Palamau is doubtful. According to one account,* it is derived from the Hindi word *palānū*, 'to flee,' and means 'a place of refuge'. Another suggestion† is that the name is a combination of *pālā*, meaning 'frost,' and *mu*, the patois root for 'dead,' the whole word meaning 'dead from frost', parts of the district being liable during the winter months to severe frosts. Both these explanations however must be regarded as purely speculative. Another suggestion‡ is that Palamau is a Dravidian name, that it may

* L. R. Forbes, Settlement Report, 1872. This is supported by the fact, mentioned by Mr. Bridge in paragraph 1 of his Settlement Report, that the name of the district is given as 'Palayun' in an old sanad possessed by the malik of Lukumkar.

† D. H. E. Sunder, Settlement Report, 1898.

‡ Rev. F. J. Hahn.

be a corruption of *pall-amm-ū*; *pall* meaning 'tooth,' and *amm* (which when combined with another noun assumes the form *am*) meaning 'water,' while *u* is a kind of genitive or possessive case, meaning 'village,' 'country,' 'fortress,' etc. In support of this theory, it may be mentioned that the name is spelt Palamau in the vernacular and was originally applied to the village which was the seat of the Chero chiefs, and in which their forts were erected. These forts overlook the Auranga and the bed of that river for some miles above and beyond the forts is studded with rocks, which, when it is in flood, look like jagged teeth. The name may thus perhaps mean 'the place of the fanged river'.

Boundaries.

The district is bounded on the north by the river Son, which separates it from the district of Shahabad, and by the district of Gaya: on the east by the districts of Gaya and Hazaribagh: on the south by the district of Ranchi: and on the west by the feudatory state of Sirguja in the Central Provinces and the district of Mirzapur in the United Provinces.

Configuration.

In shape Palamau district is roughly a parallelogram of which the eastern and western are of greater length than the northern and southern sides. The district is cut into two approximately equal parts by the river Koil which, after flowing from east to west in the south of the district, turns north and eventually enters the Son at the northern boundary of the district. On either side of this river in the northern thanas there are well defined ranges of hills running from east to west: in the south there is another well defined range of hills running from east to west through which the Koil forces its way where it turns north at the Kutku gorge; and the general tendency of the scattered hills that lie between is to range themselves in the same manner. South of the Koil, where it flows from east to west before passing through the gorge, is another range of hills running parallel to it, and beyond that again is the isolated cup-like valley of Chhechhari. The eastern end of this southern range increases in height and turns towards the south where it culminates in the Netarhat plateau. The general system of the district is therefore a series of parallel ranges of hills running east and west, through which the river Koil passes as it makes its way northward to join the Son: only the most southern of these ranges is not penetrated by the Koil and that

is penetrated by one of its tributaries, the Burhi naddi, which drains the Chhechhari valley. Within this frame work the most valuable arable land is found between the ranges of hills in the valleys, which vary in size up to 900 square miles, and on the banks of the Koil and the Son. The most fertile land is a strip of alluvial soil on the bank of the Son and the most extensive areas of cultivation are in the valleys of the Koil and of the Amanat, which flows into the Koil from the east a few miles north of Daltonganj. Otherwise the district consists for the most part of hilly, broken country covered with low jungle and cut up in all directions by numerous streams and torrents which dry up during the hot weather and come down in spate during the rains. The average elevation of Palamau above sea level is about 1,200 feet, but some of the loftier hills in the south are over 3,000 feet high. The highest point of the Netarhat plateau, which is also the highest point in the district, is 3,696 feet.

The district comprises four distinct tracts which are ^{Natural} roughly conterminous with the four *parganas* into which ^{divisions.} it is divided. By far the largest of these is Pargana Palamau, which includes the greater portion of the district and all that is essentially typical of it. Pargana Tori in the south-east angle of the parallelogram is an undulating, but in many places a highly cultivated, tract with a few large, isolated hills; until recently it formed part of Ranchi district and its people, customs and land tenures are distinct from those of the rest of Palamau. The southern portion of Pargana Belaunja, which forms the north-west angle of the parallelogram, resembles Pargana Palamau, but towards the north it sinks into the narrow strip of alluvial soil on the bank of the Son. Pargana Japla, in the north-east angle of the district, is a small tract, almost devoid of hills and very similar to the alluvial portion of the district of Gaya.

The scenery of Palamau, except in the south, is generally ^{Scenery.} disappointing owing to the tangled nature of the country. Level plains and broad expanses of cultivation are the exception; and the isolated peaks and irregular ranges of rocky, jungle-clad hills that close the view in many places are monotonous and of no particular distinction. The general absence of conspicuous landmarks adds to the impression of disorder. The villages, except in the extreme north of the district, are small and scattered; it is quite possible to pass

close to many of them without being aware of their existence. Nor do the innumerable *palas* trees add to the beauty of the scene, except during that all too brief period in the hot weather when their scarlet blossoms give a glory to the whole country-side. In the south of the district the scenery becomes wilder and more picturesque, and the hush of expectancy broods over the jungle. "The Koil", wrote Mr. O'Malley, "is fringed by imposing hills and passes clad with virgin forest, the beauty of which reaches its highest natural perfection when set off by animal life, in the shape, it may be, of a bison, contentedly but suspiciously grazing on the luscious *khas* grass, an antlered stag taking its evening drink, or big peacocks trumpeting their noisy call, as they step forth at sundown for their daily parade". "In the south", wrote Mr. Forbes fifty years ago, "the jungle becomes forest, and the hills put on almost a grand appearance. The roads and paths wind about now over the top of a lofty eminence, which enables you to look down upon the valley below and over to the blue hills beyond. Then, again, you have to descend a steep *ghat* with huge boulders scattered here and there, and some great tree lying fallen and decayed right across your path, and loose stones which seem to require but a slight push to send them rolling to the bottom. On reaching the bottom of the *ghat*, the path will sometimes follow the bank of a brook or watercourse, which, emerging from the fastnesses and gorges among the hills, winds in and out till it joins the stream that waters the valley below. These brooks are generally dry very early in the cold weather but in some of the southern *tappas* I have come across them so late as the month of March, regular little babbling streams filled with speckled trout glancing in and out among the stones, and the banks sometimes rocky, sometimes clothed with verdure, and always overhung with trees of all kinds and hues, and great creepers that hang down to the water's edge, the whole forming as charming a picture as one could wish to see." There are indeed places in Palamau about which lingers a charm that can be neither missed nor forgotten. Each to his choice, but to the writer there is nothing more beautiful in Chota Nagpur than the view across the Son in the north to the great cliffs of Rohtas; or the quiet reaches of the Koil and the Auranga where they wind through the forest; or the prospect to east and west from Netarhat across open valleys far below to the wooded hills beyond; or the panorama of range beyond range of blue hills to the south, from Burha

Pahar to Kumandih, that can be seen on a clear evening from the Ranchi road.

The general outline of the hill system, consisting of a series of parallel ridges running east and west and pierced by the Koil as it flows northward, has just been described. The course of the Koil shows great denudation, for it must have been determined when the valleys were still filled to the level of the ridges. But there are many spurs and ridges and outlying peaks, rising from comparatively open country, which stand in no obvious relation to this system: amongst these may be mentioned the metamorphic rocks which form the watershed between the Koil and the Damodar to the west of the Chandwa-Balumath road and which rise into the conspicuous hills of Madagir and Chetag. The majority of the spurs and ridges bear no definite names, but the peaks are often called by the names of villages in which they stand or from some peculiarity in their appearance.

Generally the hills are conspicuous for their irregularity of form and occurrence. Their contour depends mainly on the nature of the rocks of which they are composed, but every variety of form and outline is found. The most numerous and ancient are those composed of crystalline and metamorphic rocks, a class represented by a great number of hills and ranges with elevations up to and sometimes beyond 3,000 feet. The outlines presented by the hills in the northern half of the district are generally sharply angular, but elsewhere many of the ridges present an almost regular skyline, which continues at a steady elevation for long distances. The second class consists of hills formed of sandstones or conglomerates, either Barakars or Mahadevas. The sandstones are represented by long ranges east of the Koil, averaging 200 to 300 feet above the surrounding country, but occasionally having peaks which rise about 200 feet higher. The latter are found in groups consisting for the most part of flat-topped ridges, which also average from 200 to 300 feet above the surrounding country. Their faces are scarped and often eroded into grotesque shapes; and occasionally there are conical peaks rising to a great height, such as the Latehar peak near the village of that name, which is 910 feet high or 2,051 feet above sea level; Bijka, which rises 1,300 feet above the village of that name or 2,479 feet above sea level; and the conspicuous Khaira hill in the south

of Husainabad, which rising to nearly 1,700 feet looks like an outlying sentinel of the Kaimur hills and forms a landmark for 30 miles round. The third and last class of the Palamau hills includes the *pats* or plateaux in the south, which are formed of crystalline rocks and have their summits capped with sandstone trap or laterite. The principal of these is Netarhat, of which the highest point is 3,696 feet.

These hills in the south are the highest in the district, and the picturesque Chhechhari valley is surrounded by lofty hills on every side. This valley is a complete basin with the scarp of the great tableland of Sirguja on the west, on the south the range that overlooks the Barwe valley in Ranchi district, on the east Netarhat and Pakripat, and on the north the spur crowned by the fort of Tamolgarh and the Burha Pahar, 3,000 feet high, round the foot of which flows the river of the same name, which is the only outlet for the waters of the valley. Netarhat itself is a flat topped hill, about 4 miles long and $2\frac{1}{2}$ miles broad, through the centre of which flows a small stream. The climate is fresh and relatively cool throughout the year and it has become a favourite resort for visitors when the heat is oppressive in the plains below. Other conspicuous hills in this neighbourhood are Kotam, south of Garu police-station, and Kumandih, between Garu and Latehar, both of which are between 2,500 and 3,000 feet high.

RIVERS.

The general line of drainage is from south to north towards the Son, which forms part of the northern boundary of the district. The principal rivers are the Koil and its tributaries, the Auranga and the Amanat; there are also a host of smaller streams, most of which are mere mountain torrents with rock-strewn beds. The Koil, Auranga and Amanat are similar in this respect, for their upper reaches are characterized by high banks, generally rugged and occasionally precipitous, with a rapid stream dashing over boulders and shingle or gliding calmly, except in time of spate, in shallow pools terminated by rocky barriers. Further north these rivers have deep sandy beds, into which the water sinks out of sight in the hot weather, percolating through the soft sand until some outcrop of rock arrests its course and forces it to the surface.

The rapidity with which the country is drained by these rivers and streams may be gathered from the fact that the

only river ever known to overflow its banks is the Son. The Koil is the most important river, for it drains the entire district except a tract in the west drained by the Kanhar, which joins the Son in Mirzapur district, a narrow tract along the Son, which drains direct into that river, a tract in the north-east corner which drains into Gaya, and a tract in the east of Tori Pargana which drains into the Damodar in Hazaribagh. All the rivers of Palamau are dangerous in the rains, not only on account of the violence of the freshets which come rushing down, but also because of the extremely treacherous quicksands in their beds. The following is a brief description of the principal rivers.

The Son forms the northern boundary of the district for The Son. about 45 miles, separating it from Shahabad. Flowing eastward from Mirzapur, it first touches Palamau at its north-west corner. Thence it flows due east between the steep slopes and precipices of the Kaimur hills and a northern range of hills in Bhaunathpur police-station, till it is joined by the Koil; it then flows in a north-easterly direction, leaving the district nearly opposite Akhbarpur in Shahabad district. At this point of its course it attains a great breadth amounting in places to one or two miles. A peculiarity is the height of the eastern bank, where the strong west winds that prevail before the breaking of the rains heap up the sand to a height of 12 or 14 feet above the level of the country, thus forming a natural embankment for many miles. But the most striking features of the river are its meagre stream of water at ordinary times as compared with the enormous breadth of the river bed, and its violence at times of flood. In the dry season, in April or May, the bed is a wide stretch of drifting, blinding sand with an insignificant stream of water, barely 100 yards wide, meandering from bank to bank and fordable in most places. But in the rainy season, and especially after a storm has burst on the plateau of Central India, the river presents an extraordinary contrast. It drains a hill area of 21,300 square miles, the entire rainfall of which requires to find an outlet by its channel; and after heavy rain the river rises with incredible rapidity. These heavy floods are however of short duration, seldom lasting more than four days, after which the river rapidly sinks to its usual level. The worst flood remembered occurred in 1923 and is mentioned in Chapter VII.

Navigation is intermittent and of little commercial importance. In the rainy season large boats occasionally proceed for a short distance upstream, under favourable circumstances of wind and flood, but navigation is rendered dangerous by the extraordinary violence of the floods; during the rest of the year it is impossible for any but boats of light draught owing to the small depth of water. The principal traffic is in bamboos which are floated down, bound into rafts consisting of 10,000 or more lashed together—a tedious process in the dry weather as they are constantly grounding and the many windings of the stream render their progress extremely slow. Below the junction of the Koil a species of small pebbles or agates is found, many of which are ornamental and take a good polish; most of them consist of silica, both opaque and diaphanous, of a reddish or dark green tinge.

The Kanhar. The Kanhar river forms part of the south-western boundary of Palamau, dividing it for nearly 50 miles from the feudatory state of Sirguja. It rises in Sirguja, under the western face of Jamira Pat, and after running for a short distance parallel with the Koil, turns to the north-west, flows into Mirzapur and eventually enters the Son. Its bed is rocky throughout its course, and in places extremely beautiful: it is practically a mountain torrent with a rapid and dangerous stream.

The Koil. The Koil or North Koil, as it is also called, rises in Ranchi district, and enters Palamau below Netarhat near Rud. After flowing nearly due west for about twenty miles it turns north at an almost complete right angle through a gorge at Kutku, and flows through the centre of the district, till it falls into the Son a few miles north-west of Haidarnagar. On its way it receives the water of many rivers and streams; the principal tributaries are the Auranga and the Amanat, both of which join it from the east, the former at Kechki, 10 miles south, and the latter five miles north of Daltonganj. .

The bed of the Koil is rocky up to a short distance beyond its confluence with the Auranga; from that point it is composed mainly of sand, and until the Son is reached there is only one serious obstacle to navigation, consisting of a ridge of gneiss rock that crosses the river below the village of Sigsigi. But the sudden freshets in the river during the rains

render navigation dangerous. It has been known to be almost dry in the morning, and three hours later, owing to heavy rain in the south, the water has been 10 feet deep, roaring down in huge waves that would swamp any local boat. From its source to its junction with the Son its length is about 160 miles, and since it drains a catchment area of at least 3,500 square miles, it naturally contributes a large supply of water to the Son during the rains; at other times the stream is not deep enough to enable cargo boats of even small dimensions to make their way up to Daltonganj. In many places the reaches of this river present scenes of great beauty, and sometimes even of grandeur, such as the rocky bed and rapids north of Hutar and the gorge at Kutku.

The Auranga rises near Soheda in a pass leading down The Auranga. from the Chota Nagpur plateau, and pursues a winding course in a north-westerly direction for a distance of about fifty miles, till it flows into the Koil near Kechki 10 miles south of Daltonganj. This river and its feeders water a large valley in the south-east, the southern face of which is formed by the Kumandih hills. Its bed widens rapidly and by the time it reaches the Palamau forts it has attained a considerable size. Where the ruins of these two forts overlook it, the channel is crowded with huge masses of gneiss. Owing to its rocky bed, navigation is impossible in the rains; and at other times the supply of water is insufficient for even the smallest craft. Its principal tributaries are the Sukri and Ghaghri.

The Amanat takes its rise in Hazaribagh district and The Amanat. flows almost due west till it joins the Koil five miles north of Daltonganj. It flows through a rich, well cultivated valley and is the principal drainage channel of the east of the district. Its tributaries, with the exception of the Jinjoi, Maila, and Piri are all small streams.

Other streams draining important areas are the Sarab-Other rivers. daha, the Tahleh, the Banki, which drains the country between Untari and Untari Road station, the Danro, which flows past Garhwa, and the Kararbar, which flows into the Son below its junction with the Koil after draining Pargana Japla.

The characteristic formation of Palamau is gneiss, of GEOLOGY. which all the more important hill ranges are composed. It is of extremely varied constitution, and includes granitic gneisses, hornblende gneisses, calcareous gneisses, etc.

In some parts, associated with the gneisses, there is an enormous thickness of crystalline limestone. Along the north-west boundary of the district is the eastern termination of a large outcrop of Bijawar slates, which extends westward for nearly 200 miles through Mirzapur and Rewah. The Lower Vindhya, which rest unconformably upon the Bijawars, are found along the valley of the Son, where representatives of the Garhbandh, porcellanic and Khinjua groups are found. The Garhbandh group contains two subdivisions, a lower one consisting of conglomerates, shales, limestones, sandstones and porcellanites, and an upper band of compact limestone of 200 or 300 feet in thickness. The rocks of the porcellanic group, which overlies the Garhbandh, are indurated highly siliceous volcanic ashes; their thickness increases as they approach the former centres of volcanic activity in the neighbourhood of Kutumba, Nabinagar and Japla. The shales and limestones of the Khinjua group are mostly concealed by alluvium along the banks of the Son. As the Vindhya are unfossiliferous, their geological age cannot be exactly determined, but there is reason to think that they may be older than Cambrian.

The next formation, the Gondwana, contains numerous fossil plants, which determine its age partly as upper palaeozoic and partly as mesozoic. It is of great economic importance on account of the coal and iron ore which it contains. It comprises in Palamau the Mahadeva, Panchet, Raniganj, Barakar and Talcher divisions. The rocks of this formation generally weather into low undulating ground but those of the Mahadeva group rise into lofty hills and those of the Barakar group sometimes form low ranges of hills. The coal seams are restricted to the Barakar and Raniganj groups, which consist of alternating groups of shale and sandstone; the workable seams are found chiefly in the Barakar. The Panchet and Mahadeva groups consist principally of sandstones, and the Talcher mostly of shales; the Talchers, which are the oldest Gondwana rocks, contain at or near their base an irregularly distributed conglomerate, consisting of large and small boulders embedded in clay, which is supposed to be of glacial origin. The Auranga, Hutar, and Daltonganj coalfields are situated entirely in Palamau, which also contains the western extremity of the large Karanpura field. There is little doubt that these fields were originally parts of a continuous whole; the Auranga field is however more

obviously connected with Karanpura, from which it was separated by subsidence, than with Auranga. The boundaries of the coalfields are usually faults, whose position is indicated by lines of siliceous breccia, and hot sulphurous springs are frequent along them; among these springs may be mentioned that known as Tataha near the village of Hithli Marwai in the Hutar coalfield. The best coal is that of the Daltonganj field, but the quality and quantity of the coal vary considerably throughout the field. This field has been worked since before the Mutiny by the Bengal Coal Company and the same company has now taken a lease of the greater part of the Hutar field, in which a "cole mine" is shown in Rennell's map which was prepared as long ago as 1779. In the Auranga field, although there is a large amount of coaly matter, the quality is inferior. The iron ores which occur are hematite and limonite associated with shales of the coal measures of the Barakar group.

Near the southern edge of the district, the lofty flat-topped hills known as *pats* are capped by great masses of laterite resulting from the decomposition of basaltic beds of the Deccan trap formation. A few intrusive dykes of the Deccan trap formation occur in the Daltonganj and Hutar coalfields.

Along the Son, especially below its confluence with the Koil, the rocks are concealed by deep alluvium which merges into the alluvial formation of the Gangetic plain. Alluvial soil is scattered over many other parts of the district, and nearly everywhere contains in great abundance the calcareous concretions known as *kankar*.

Detailed descriptions of the geology of the district will be found in the Memoirs of the Geological Survey of India. The Auranga and Hutar coalfields and the iron ores of Palamau and Tori have been described by V. Ball in vol. XV, part I; the Daltonganj coalfield by Th. Hughes in vol. VIII, part II; the Karanpura coalfield by Th. Hughes in vol. VII, part III; the Lower Vindhya generally by F. Mallet in vol. VII, part I; and the volcanic rocks of that series by E. Vredenburg in vol. XXXI, part I. An account of a boring exploration in the Daltonganj coalfield by Mr. T. D. LaTouche will be found in Records, Geological Survey of India, vol. XXIV, part III.*

* Sir T. Holland, when Director of the Geological Survey of India, assisted in the preparation of the above account of the geology of Palamau.

BOTANY.

The vegetation of Palamau is very varied in character. In the alluvial tract to the north, where the land is largely under rice cultivation, the fields abound in marsh and water plants. In the wooded hills and valleys which make up the rest of the district a different class of flora is met with. The surface is occasionally bare and rocky, but the hills are generally clothed with jungle, in which the close-set bamboo known as *Dendrocalamus strictus* is often prominent. The steeper slopes again are covered with a dense forest mixed with many climbers; the trees are rarely large, but many of them are economically useful, yielding timber, fruit, oil, etc. *Sal* (*Shorea robusta*) is gregarious, and among other noteworthy species are species of *Buchanania*, *Semecarpus*, *Terminalia*, *Cedrela*, *Cassia*, *Butea*, *Bauhinia*, *Acacia* and *Adina*, which these forests share with similar forests on the lower Himalayan slopes. Mixed with these however are a number of trees and shrubs characteristic of Central India, such as *Cochlospermum*, *Soyimida*, *Boswellia*, *Hardwickia*, and *Bassia*, which do not cross the Gangetic plain. One of the features of the flowering trees is the wealth of scarlet blossom produced in the hot weather by the abundance of *Butea frondosa* and *Butea superba*. A more detailed description of the forest trees and jungle products will be found in Chapter V.

FAUNA.

The animals of the district may be divided into two classes, the carnivora and the non-flesh-eating animals. The former comprise the tiger, leopard, bear, hyæna, wild dog, and, among the smaller species, jackal and wild cat. The latter are represented by the *gaur* or bison, *sambar*, spotted deer, *nilgai*, barking deer, Indian gazelle, four-horned antelope, wild pig, the black-faced monkey (*langur*), the common red-faced monkey, Indian fox, *ratel* (an animal of the badger tribe), Indian otter, mouse-deer, porcupine, hare and other smaller animals.

The number of persons killed by tigers and leopards in the last five years is as follows. The number of persons killed by other wild animals is negligible.

				1924.	1923.	1922.	1921.	1920.
By tigers	...	...	...	14	12	34	29	26
By leopards	...	...	...	7	11	33	27	3

Tigers (*Felis Tigris*) are fairly common all over the district in the wooded hills. Though there have been instances of tigers becoming man-eaters, chiefly in the north of the district and in the neighbourhood of the Kumandih range of reserved forests in the south, they are as a rule only cattle-lifters; there is indeed little inducement for them to take to man-eating, as game in the numerous jungle tracts, both in and round the reserved forests, is plentiful. Leopards (*Felis Pardus*) are equally common, and in the neighbourhood of villages very often carry off cattle and ponies, as well as dogs for which they appear to have a special fancy. Like tigers, they have a wide range, owing to the large area occupied by reserved, protected, and private forests. The cheetah is occasionally met with: an animal which is said to be a cheetah has been carrying off children from the neighbourhood of Untari for some years past and has hitherto evaded capture although a large reward has been put on its head. Bear (*Ursus Melursus*) are found in most parts of the district, but are most numerous in the south. They do much damage to the maize fields, but at other seasons of the year can obtain plenty of jungle flowers and fruit, such as the fruit of the *mahua* and *gular* fig tree, plums and bulbiferous roots, and also wild honey and white ants. Hyæna (*Hyæna striata*) are common in almost every jungle and may very often be seen prowling round the village homesteads at night. They do not do much damage as a rule, though they have been known to take off goats and sheep; generally they live on carrion, frequently eating the remains of animals killed by tigers or leopards. Wolves are not common and do not appear to do any harm; they are rarely met with in the south, and appear to frequent open scrubby tracts. Two species of wild dog are said to be found. The smaller variety has black points, a black muzzle and a tail very nearly all black, the colour deepening towards the end of the tail, while the rest of the body is a dull dark red. The larger variety is the same in colour, except that there is not so much black about the muzzle and tail. The smaller kind is called *munikoia* and is said to be the fiercer of the two, attacking cattle and deer, and even challenging tiger. The larger variety, which is called the *rajkoia* or *barakoia*, is said to attack chiefly goats, *sambar*, deer, pig, etc. They hunt in packs of 10 to 15, chiefly haunt thick jungle, and are destructive of all game; at times they even chase tigers out from their preserves.

The *gaur* or bison (*Bos gaurus*) is a shy animal, found chiefly in heavy jungle, especially *sal* jungle, from which the herds come to feed morning and evening, wherever deep green grass is to be found; they often travel long distances to quiet spots on some secluded hillside, where they can lie up for the day. They are found both within and outside the reserved forests in the south, and especially at Netarhat and in the valleys to the north and east of it; as a rule, they remain there in the hot weather months, but in the rains, when there is plenty of dense cover and grass, they come as far north as Kerh. They are generally found in herds of 10 to 15. In March, at the commencement of the rutting season, the strongest bull takes possession of the herd, which consists usually of cows and young bulls, driving out the older bulls. The bulls so turned out become solitary bulls, and seem to spend their time in knocking their horns to pieces by butting at trees or any other solid substance they may come across. Bison bulls are occasionally known to charge, and are very savage when at bay, but ordinarily they are shy and inoffensive.

Sambar (*Cervus unicolor*) are fairly common. They are shy animals and usually keep to the jungle in the day; they are mostly found in the south in the Baresanr and Ramandag reserved forest blocks, but are also met with towards Ranka and the north-west of the district. Spotted deer (*Cervus axis*) are common in many places; and a few black buck (*antelope cervicapra*) are to be found in the open country to the north. *Nilgai* (*Boselaphus tragocamelus*) are found in certain tracts, but are unknown in the larger reserved forests; four-horned antelope (*Tetracerus quadricornis*) are also rare. Barking deer (*Cervulus muntjac*) are common in most jungles where *sambar* and spotted deer are found. The *chinkara* or Indian gazelle (*Gazella Bennettii*), also called the ravine deer, frequents open country where the jungle is not heavy, and is found chiefly at Muhammadganj as well as in the more open and undulating valleys all over the district. Mouse-deer (*Moschus indica*) are very rare, but are occasionally found in the reserved forests.

Wild pig (*Sus cristatus*) are numerous in all parts of the district and do an enormous amount of damage to crops, which have to be carefully watched at night to prevent their inroads, as well as those of deer. They are often trapped in pits by the villagers. In the south of the district the *langur*,

(*Semnopithecus entellus*) is found in all the hill ranges in the reserved forests, and with the *bandar* or red-faced monkey (*Macacus rhesus*) is fairly common; the latter is often to be seen at Betla and Kechki, and along the Koil. The Indian fox (*Canis Bengalensis*) is common in open country. Indian otters (*Lutra nair*) are found in the Koil, towards the south near Kechki, and in the reaches of several other rivers. Porcupine (*Hystrix cristata*) are common in the south and elsewhere in the rocky hills, but their numbers are kept down, as they are much sought after by the aboriginal tribes, such as the Parhaiyas, Birjias, and Oraons, for food. Hares (*Lepus ruficaudatus*) are common everywhere; they do much damage at night to the peasants' crops, and are largely trapped all over the district; they are eaten freely even by high class Hindus.

The game birds of Palamau consist of jungle, spur and Game birds. peafowl, black and grey partridge, rain, button and bush quail, and sand grouse. The lesser florican is sometimes met with, but is rare; green and blue rock pigeon and the common snipe are fairly common. Geese are to be found in the mornings and evenings during the cold weather by the banks of the Son near Sonpura. Duck and teal are comparatively rare; they usually stay in the Koil and the *bandhs* or irrigation reservoirs near villages, and are more common in the north than in the southern tracts.

Mahseer are found in the Son during the rains and they Fish. also pass up the Koil; the latter river also contains Indian trout (*Borilius bola*). Among other fish met with at this season of the year may be mentioned *rahu* and *kajar*, but at other seasons only small varieties are found in tanks and streams, the most common among them being the *tengra*, *barar*, *chipua*, *jhinga*, *nakta*, *ledha*, etc.

The *garial* (*Gavialis gangeticus*), sometimes also called the fish-eating crocodile, is said to have been found in the Koil as far up as Daltonganj during the rains. The snub-nosed alligator or mugger is common in the Son, but elsewhere is rarely met with; it is found in tanks in some localities, specially in the Forbes tank in Shahpur opposite to Daltonganj, where it is said that they have been known to carry off cattle and ponies that came to drink alone.

The climate is on the whole dry and bracing. The cold CLIMATE. weather, which sets in towards the close of October and lasts

till the beginning of March, is delightful. There is a keen bracing sharpness in the air, the sky is bright and cloudless, and there is no rain, except for showers about Christmas time and in January. "I have seen," writes Mr. Sunder, "large trees and fields of *kurthi* (*Dolichos biflorus*) and *rahar* (*Cajanus indicus*) in the southern *tappas* of Palamau, especially at Sima and Baresanr, completely scorched by frosts, as if they had been passed through a furnace. And the weather is so cold here during December and January that water kept in a basin at night in the open may be found in the morning frozen to an inch in thickness. Night after night the fly of my tent has been laden with hoar-frost, and often in the morning the ground all around has been a beautiful sheet of whiteness which has disappeared only after the sun had risen for about two hours." Hoar-frost has indeed been known to form night after night for a fortnight on end, lying on the ground till 10 or 11 A.M. Hailstorms are very common in February and the beginning of March, when they do damage to the *rabi* crops.

In March the hot weather is ushered in by a high wind known locally as *lahar*. Generally blowing from the west, it lasts from about 10 A.M. to 3 P.M. and, as the year goes on, it gets more and more dust-laden till the end of May, degenerating at times into regular yellow dust-storms and whirlwinds called *lindoa*. During the months of April, May, and June the heat is intense during the day, the shade temperature often reaching 112° and 114° and sometimes higher; and the nights are often oppressive, except for two or three hours before sunrise, when there is usually a sharp fall in temperature. But though the heat is so great, it is exceedingly dry, and is alleviated by the strong winds blowing. The rains usually break in June and last till about the middle of September, and at this period of the year the climate is fairly pleasant and cool.

Rainfall.

The rainfall is recorded at 21 stations, 12 in the north of of the district and 9 in the south. The statistics compiled from these records show that the rainfall is habitually heavier in every month of the year in the hilly south than in the less hilly north. In the following statement the average rainfall per recording station for the twelve years 1912-1923 is therefore given month by month separately for the northern and for the southern groups. The figures for June

and September, which mark the beginning and end of the rainy season, are given by half months.

Month.				North.	South.
January	...	...	...	0·67	0·69
February	...	...	...	1·17	1·25
March	...	...	...	0·50	0·64
April	...	...	...	0·21	0·29
May	...	...	...	0·76	1·35
June, 1st half	...	...	...	2·78	3·92
" 2nd half	...	...	...	3·68	4·84
July	...	...	...	13·21	14·41
August	...	...	...	15·90	17·42
September, 1st half	...	...	...	3·67	3·77
" 2nd half	...	...	...	2·65	3·00
October	...	...	...	1·40	3·01
November	...	...	...	0·39	0·50
December	...	...	...	0·13	0·21

The names of the recording stations, with the annual average rainfall recorded at each and the number of years over which the average has been calculated in each case, are as follows :—

Station.				Average annual rainfall.	No. of years for which average calculated.
NORTH.					
Bhaunathpur	...	...	...	42·68	16
Husainabad	...	...	...	45·13	35
Hariharganj	...	...	...	43·04	10
Nagar Untari	...	...	...	44·34	23
Garhwa	...	...	...	46·14	35
Bisrampur	...	...	...	42·26	11
Chhattarpur	...	...	...	47·70	22
Manatu	...	...	...	46·31	16
Patan	...	...	...	44·98	16
Panki	...	...	...	40·83	22
Lesliganj	...	...	...	45·97	17
Daltonganj	...	...	...	44·57	51
SOUTH.					
Ranka	...	...	...	54·56	22
Kerh	...	...	...	50·54	16
Balumath	...	...	...	52·77	35
Bbandaria	...	...	...	51·28	11
Latehar	...	...	...	52·45	22
Garu	...	...	...	60·49	16
Chandwa	...	...	...	52·30	11
Netarhat	...	...	...	82·38	7
Ahuadanr	...	...	...	51·91	21

It will be seen that the months in which the rainfall is heaviest are July and August. During June the rains are beginning and during September they are beginning to stop. The important *hathiya* rains occur at the end of this month or the beginning of October. In November, December, and January there is nothing but light showers. In February a heavier rainfall may be expected; in 1913 the average rainfall during this month was 3.02 inches at the stations in the northern group and 5.01 at those in the southern. May is a month of cyclonic storms. The normal annual rainfall for the district as a whole is 44.91 inches.

Temperature
and
humidity.

Statistics of pressure, temperature, wind, and rainfall are recorded only at Daltonganj, where they have been recorded since 1893. In the south of the district frost is by no means unusual, and it is certain that the temperature falls much lower there than at Daltonganj. The following remarks are based on the statistics officially recorded at Daltonganj.

The climate of the district though healthy, is characterized by wide variations of temperature. Except in the rains, there is a difference of about 30 degrees between the normal maximum and normal minimum monthly temperatures, and it is not unusual for an equally wide variation to occur within the 24 hours. The normal mean temperature is lowest (61.1) in January and highest (93.1) in May. The normal maximum attains its lowest (75.4) and highest (106.9) points in the same two months. But the lowest normal minimum is reached in December (45.9), and the highest in June (81.1); the reason for the latter being that when the rains break in June and the air becomes laden with moisture, there is far less difference between the day and night temperatures. The difference between maximum and minimum temperatures, which is greatest in December, March, and April, reaches its lowest point in August when the normal humidity is highest (86 per cent.). Normal humidity is lowest in April (46 per cent.). The normal humidity for the year is 72 per cent. and the normal mean temperature 77.3. The highest temperature ever recorded was 116.1, which was reached in May 1897 and again in May 1919; the lowest ever recorded was 32.4 in January 1923.

CHAPTER II.

HISTORY.

No record exists of the early history of Palamau, but it ^{EARLY} plays a prominent part in the traditions of three aboriginal ^{HISTORY.} races, the Kharwars, Oraons and Cheros. The legendary history of the Kharwars states that in olden days they were the rulers of Rohtasgarh, the great fort in the south of Shahabad built on the plateau overlooking the Son, and that they migrated thence to Palamau. Epigraphic research seems to show that this claim is not without foundation. An inscription at Rohtasgarh refers to a chieftain named Pratapadhavala who belonged to the Khayaravalavansa, and Professor Kielhorn has pointed out that this name appears to survive in that of the tribe of Kharwars.* Other inscriptions of this chief have been found in Shahabad, which shew that he was the ruler of at least the northern part of Palamau and also held considerable power on the west of the Son. At Phulwari a rock-cut inscription dating back to 1169 A.D. mentions him as having constructed a road up the plateau and gives him the title of Nayaka or chief of Japila, which is evidently the modern Japla in the north of this district. Another inscription of this chief is found engraved on the Tarachandi rock near Sasaram; and a third, dated 1158 A. D., at the sacred Tutrahi falls, five miles west of Tilothu on the western bank of the Son, which says he made a pilgrimage there, accompanied by his whole household, five female slaves, his treasurer, his door-keeper, and the court pandit. The only other record of this dynasty is found in an inscription at Rohtasgarh, which records the excavation of a well in the fort by a descendant and successor of Pratapadhavala, called like him Pratapa. These records, scanty as they are, serve to show that as early as the 12th century A.D., the north of Palamau was ruled by a powerful line of chiefs, who also held the great fort of Rohtasgarh and exercised dominion over the south of Shahabad.†

* *Epigraphia Indica*, Vol. IV, p. 311, Note 10.

† Report, Archaeological Survey of India, 1902-3.

The legends of the Oraons also point to Rohtasgarh as a former stronghold of their race. According to the traditions preserved from father to son, their original home was in the Carnatic, whence they went up the Narbada river and eventually settled in Bihar on the banks of the Son. Here they built a fort at Rohtasgarh (Ruidas), but this was wrested from them by their enemies, who surprised them at night during one of their great festivals, when the men had fallen senseless from intoxication and only the women were left to fight. Some however managed to escape and, as they were pursued, divided into two parties. One party directed their course towards the Rajmahal Hills, where their descendants now form the tribe known as Mâle; the others fled to Palamau and turning eastward along the Koil took possession of the north-western portion of the Chota Nagpur plateau.* The legend current in Ranchi is somewhat different. There the Oraons say that one man only escaped from the Turkur or Muhammadans, and came upon some Horos (Mundaris), who had killed and were eating a cow. When he begged them to save him, they advised him to diyest himself of his *janeo* or sacred thread, which the Oraons then wore, and join in the feast. This he did, and his pursuers coming up believed the Mundaris when they said that the Oraon fugitive was not among them, as all were eating beef and none wore the sacred thread.

The Cheros likewise assert that they migrated to Palamau from Shahabad, where they claim to have been once the ruling race;—a claim confirmed by popular tradition, which ascribes to the Cheros many of the ancient buildings and fortifications in the south of that district. They held, they declare, the Rohtasgarh plateau till they sallied forth to the conquest of Palamau and drove out the Raksel Rajputs who were then its rulers. There is at least no doubt that as late as the first half of the 16th century they were a powerful tribe in the south of Bihar, a race of border robbers, who were chiefly known by the daring raids which they made into the open country at the foot of the hills. In the *Tarikh-i-Sher Shahi* we find mention of a chief, Maharta Chero, against whom Sher Shah sent one of his generals, Khawas Khan, with orders to cut down his jungle fastness and utterly destroy him (1538). The power of this chief appears to have

* The Rev. P. Dehon, S.J. *Religion and Customs of the Oraons*. Memoirs, Asiatic Society of Bengal, Vol. I, no. 9, 1906.

been considerable; it is said in the *Makhzan-i-Afghani* that he used to descend from his hills and jungles and harass the tenants round Bihar, and that he entirely closed the road to Gaur and Bengal; great importance was attached to his final defeat by Khawas Khan, and his destruction is mentioned in the *Wakiat-i-Mustaki* as one of the three great works accomplished by Sher Shah.*

The legends of the conquest of Palamau by the Cheros differ considerably. According to one account quoted by Colonel Dalton "the Cheros invaded Palamau from Rohtas; and with the aid of Rajput chiefs, the ancestors of the Thakurais of Ranka and Chainpur, drove out and supplanted a Rajput Raja of the Raksel family, who retreated into Sirguja and established himself there. It is said that the Palamau population then consisted of Kharwars, Gonds, Mars, Korwas, Parhaiyas and Kisans. Of these, the Kharwars were the people of most consideration; the Cheros conciliated them, and allowed them to remain in peaceful possession of the hill tracts bordering on Sirguja. All the Cheros of note who assisted in the expedition obtained military service grants of land, which they still retain. It is popularly asserted that at the commencement of the Chero rule in Palamau, they numbered 12,000 families, and the Kharwars 18,000; and if an individual of one or the other is asked to what tribe he belongs, he will say not that he is a Chero or a Kharwar, but that he belongs to the 12,000 or to the 18,000 as the case may be".†

Another tradition states that the Kharwars were not among the conquered people of Palamau but formed part of the invading army; and that the two tribes are distinguished by the names of Atharahazar and Barahazar, because the Kharwars of this force numbered 18,000 and the Cheros 12,000. On this point at least tradition agrees, that the rulers of Palamau at the time of the Chero conquest were Raksel Rajputs, and that the Mars or Mals were early settlers in the land. To this day numerous forts, such as that of Tamolgarh in the Chhechhari valley, of Tarhasi near the Amanat river, and of Kot, are attributed to the former, while local tradition says that the old town of Palamau, the important trading mart of Garhwa and the villages of Danda, Lakhna,

* Sir H. Elliot, *History of India*, Vol. IV, 1873.

† Colonel E. T. Dalton, *Descriptive Ethnology of Bengal*, 1872.

and Marhatia, were built by the Mals. Popular belief has it that they were a very wealthy race, and that parties of them return occasionally to the sites of their ancient settlements, seeking treasure which their ancestors buried in the hurry of flight. The Mals have nearly disappeared from the district, but are still found in the adjoining state of Sirguja, where they assert that their descendants were driven out of Palamau by force of arms.

The legend generally accepted in the district is far more detailed. The Cheros, it is said, formerly lived in the sub-Himalayan tract called the Morang, but migrated to Kumaon and thence made their way south to Bhojpur, i.e., Shahabad, where they reigned for seven generations. The fifth ruler of the line, Sahabal Rai, invaded Champaran with a large army of Cheros and ravaged the country as far as the *terai* but, after returning to his fort at Chainpur in the south of Shahabad, was defeated and taken prisoner by a force despatched by Jahangir; he was then sent to Delhi, where he died fighting a tiger single-handed for the amusement of the Emperor. His son, Bhagwat Rai, continued the predatory raids which had led to his father's downfall and, when the imperial forces marched against him, took refuge with a Rajput chief, Deo Sahi, who held the fort of Dhaundar, a village near Sasaram. Thence he went to Palamau with Deo Sahi's son, Puran Mal, and a small following and took service under Man Singh, the Raksel chief of the country. In 1613, when Man Singh had gone to Sirguja, Bhagwat Rai treacherously murdered his family and made himself master of the country, appointing Puran Mal as his Diwan or Prime Minister (1613). Puran Mal is the ancestor of the Chainpur and Ranka families.

The Chero
Raj.

Bhagwat Rai was the first of a long line of Chero chiefs who reigned in Palamau for nearly 200 years. He was succeeded by his son, Anant Rai, and he in his turn by his son Medni Rai, surnamed the Just and the most powerful ruler of the dynasty, who is said to have extended his sway far beyond the tract of country now included in Palamau. He made himself lord paramount of the southern portion of Gaya and of large portions of Hazaribagh and Sirguja, and undertook an expedition against the Maharaja of Chota Nagpur, in which he penetrated as far as Doisa, sacked it and built with the plunder thus obtained the old fort of Palamau. His son, Pratap Rai, is said to have built the other

fort at the same place, though the building was never completed. It remains as it was left by the workmen, with large heaps of stones piled up in the courtyard, some cut, others just as they came from the quarry—a fitting monument of the fall of the great power raised up by Medni Rai, which after his death was undermined by quarrels and dissensions among his family.

With the advent of the Muhammadans, safer historical ground is reached. The power of the Mughal Emperors was first felt in Palamau during the reign of the Emperor Akhbar, when, according to an account compiled from the Subahdari registers at Patna in 1771 by Maharaja Shitab Rai, Palamau was invaded by Raja Man Singh. This officer settled his troops in the district, but at Akhbar's death in 1605 they were driven out. In 1629 Ahmad Khan was appointed by the Emperor Shah Jahan to be Subahdar of Patna, and Palamau with some of the neighbouring country was given to him as his *jagir*. On this he succeeded in imposing a yearly tribute of Rs. 1,36,000, and it was recalcitrance on the part of the Chero rulers of Palamau in paying this yearly tribute that led to the three Muhammadan invasions of Palamau which are recorded in the chronicles of the Muhammadan historians.*

The first of these invasions took place in 1641-42 in the reign of Pratap Rai, when Shaista Khan, the Governor of Bihar and maternal uncle of the Emperor Aurangzeb, defeated the Cheros in several engagements. According to the *Padishahnamah*, the short-sighted rulers of Palamau trusted to their mountain fastnesses, and showed no signs of obedience to the imperial governor. Pratap Rai, an infidel like all his ancestors, neglected to send the customary tribute and defied Shaista Khan, who reported his contumacy to Shah Jahan. The Emperor thereupon ordered Shaista Khan to drive him out and "clear the country of the filth of his unprofitable existence". In October 1641 Shaista Khan marched from Patna at the head of an army of 5,000 horse and 15,000 foot, and entered the territory of the Cheros through the Manatu pass. The account of the preparations made shows the difficult nature of the country he had to traverse and the slow advance made. "Wherever he pitched his camp, he had trenches dug, the earth of which was formed into a wall

* H. Blochmann, *Notes from the Muhammadan Historians on Chutia Nagpur, Pachet and Palamau*, J.A.S.B., Vol. XL, Part I, 1871.

surrounding the whole of the encampment, and matchlock-men were placed as guards in the trenches to frustrate night-attacks. A large party was employed to cut down the jungle and make a road wide enough for the army to advance. All settlements on both sides of the road were plundered and destroyed. The wretched enemies withdrew on every occasion to the jungles and the hills, and trembled like victims in the hands of the butcher. The swords of the soldiers, swords of pure water, delivered many unto the fire of hell; others escaped half dead with fright. Of our troops also some were wounded, and a few fell martyrs in this holy war. "

By the end of January 1642 the army had penetrated as far as Ara, and an advance was then ordered on the fort of Palamau. After a short but successful engagement, the Muhammadan troops pressed on to the fort, which was surrounded on all sides by impenetrable forest, and here the advance guard was attacked by the Cheros when clearing the jungle for an encampment. "Shaista, on hearing of the engagement, sent at once a detachment to their assistance, and together with Zabardast Khan took up a position on the banks of a river which flows below Fort Palamau. The enemy, covered by the houses outside the fort, fired upon him and, as a number of our troops suffered martyrdom, the men dismounted and occupied the summit of a hill which commands the fort. The firing lasted till evening, and large numbers were killed and wounded. " After this battle Pratap Rai submitted and promised to pay a tribute of Rs. 80,000; and when this sum had been handed over, Shaista Khan left Palamau (February 12th 1642).

Invasion
of Zabardast
Khan.

* Internal faction now set in, a conspiracy against Pratap Rai being set on foot by two of his uncles, Tej Rai and Darya Rai, who induced Itikad Khan, the successor of Shaista Khan, to consent to Pratap's deposition on condition that he was sent to Patna as a prisoner. Tej Rai then proceeded to imprison Pratap and usurped the throne, but he failed to keep his promise and deliver up the fallen chief to the Governor of Bihar. The latter accordingly lent a ready ear to the suggestion of a fresh band of conspirators, headed by Darya Rai and other chiefs disappointed with the new régime, that they should hand over the fort of Deogan if he supported them with an army against Tej Rai. This undertaking was faithfully carried out, the fort being surrendered to a Muhammadan force in October 1643. Their commander, Zabardast Khan,

at once proceeded to prepare the way for a forward movement by cutting down the jungle and widening the road to Palamau, and Tej Rai sent up an army of 600 horse and 7,000 foot to oppose his advance. This force was defeated in an engagement a few miles from Deogan, and shortly afterwards Pratap was set at liberty by some of his adherents and put in possession of the fort of Palamau. Tej Rai fled, and Zabardast Khan then marched on Palamau, passing through dense jungles and forcing several difficult passes. When he was within six miles of Palamau, Pratap, seeing the hopelessness of resistance, opened negotiations which ended in his going with Zabardast Khan to Patna. There he agreed to pay an annual tribute of a lakh of rupees; and on the recommendation of Itikad Khan, Shah Jahan made him a commander of 1,000 horse and gave Palamau to him as a military fief, its *jama* being fixed at 2½ lakhs of rupees.

Up to this time the Muhammadans had succeeded, in spite of two invasions, in obtaining nothing but promises from the chiefs of Palamau, who continued the same policy for twenty years longer. Every year the Muhammadans demanded their tribute; and every year the Palamau chiefs neglected to pay it and continued their cattle-lifting raids along the frontier. At last Daud Khan, the Governor of Bihar, determined to teach a sharp lesson to these "heathenish zamindars" and completely subjugate their country. Of this invasion there is a long account in the *Alamgirnamah*, from which we learn that the territory in which the rule of the Cheros was acknowledged extended for some distance into the south of Gaya district: indeed, the northern frontier of Palamau is said to have been only 50 miles from Patna. Palamau, the seat of the Chero chief, is said to have been a considerable city, tolerably well populated and protected by two strong forts, one on the summit of a neighbouring hill, the other on the plain; the Auranga river flowed close by, and all round were high hills and dense jungle. On the frontier were three great forts, viz. Kothi, Kunda, and Deogan, and it was against these that Daud Khan first proceeded to march.

Invasion
and
conquest of
Daud Khan.

Leaving Patna with a strong force on April 3rd, 1660, he reached Kothi, six miles south of Imamganj in the south of Gaya district on May 5th, only to find that the enemy had abandoned it. He then moved on to Kunda, a

strong hill fort 14 miles south-south-east, but this short distance took his army just a month to traverse. The whole country was covered with dense forest and Daud Khan, who was determined to advance methodically, securing a safe line of communication, set his army to clear the jungle and make a road. On June 3rd he reached Kunda and found that this fort also had been evacuated. He razed the fort to the ground and then, as further advance was prevented by the approach of the rains, garrisoned a series of fortified encampments built at short distances between Kothi and Kunda. On October 25th at the end of the rains, the army, 6,400 strong, resumed its march but progress was very slow owing to the cautious tactics of Daud Khan. A large body of pioneers was sent ahead to fell the forest and make a road; outposts were established along the line of march; and every evening entrenchments were thrown up round the camp to prevent surprise attacks at night. In nine days the army had only advanced 20 miles, reaching Loharsi near the Amanat river on November 3rd. Here some time was spent in fruitless negotiations, but on December 9th Daud Khan had penetrated within two miles of Palamau; and the Cheros, advancing from the fort, threw up entrenchments and prepared to make a final stand.

Daud Khan then offered the Chero chief the final terms dictated by the Emperor, namely, that he should submit, embrace Islam, and hold his state as a tributary chief. On December 17th, before a reply was received, one of Daud Khan's captains, unable to suppress the eagerness of the soldiers, attacked the enemy's outworks; and Daud Khan, hearing of the engagement, pushed forward with the rest of his force, threw up entrenchments within range of the enemy's fire, and commenced a bombardment, which lasted till sunset put an end to the fighting. During the night, the Cheros brought two large cannon from the fort, and mounting them on their bastions and curtain-works, completely dominated Daud Khan's trenches which were on a lower level. The Muhammadans however, equal to the emergency, carried a hill overlooking the enemy's position, and dragging guns up it, enfiladed the enemy and quickly silenced their fire.

The fighting had now lasted three days, and the Cheros, unable to hold their position, retreated to the banks of the river, and proceeded to erect breastworks along the line of

hills running parallel to it, and to barricade the passes. Daud Khan, following the same plan of clearing the country as he advanced, spent two or three days in felling the forest which intervened between him and the enemy, and then ordered a general advance. After a stubborn fight of six hours' duration, "the breeze of victory blew on the cows" tails fixed on the standards of Islam"; and the enemy fled into the fort. Their final stand is graphically described in the *Alam-girnamah*. "It had been Daud's original plan to occupy the trenches dug by the enemy, and commence a siege; but the soldiers could not check their fury, and rushing to the river they crossed it, and attacked the fortifications which surround the town at the foot of the fort. The enemy troops withdrew to the higher fort, where the Raja, who had sent his whole family and valuables away to the jungles, continued the defence. The imperial troops in the meantime had taken the lower fortifications and stood before the gate of the upper fort, where the fight raged till the first watch of the evening. Half a watch later, the Raja fled to the jungles and the whole fort was occupied by the victorious army. The town was cleared of the filth of the existence of the infidels, their idol temples were destroyed, and the prayer of Islam filled the place."

The capture of the forts of Palamau practically ended the struggle. Though the Cheros succeeded in carrying the fort of Deogan, they were quickly expelled by a force detached by Daud Khan, and the Muhammadan conquest was complete. Daud Khan remained for some time, fortifying several strongholds and arranging for the administration of the country, and then returned to Patna, leaving Palamau in charge of a Muhammadan Fanjdar. The latter was removed in 1666, and Palamau was then placed under the direct control of the Viceroy of Bihar.*

From this time the annals of Palamau are blank for nearly half a century. The Muhammadans treated the country as a fief and did not interfere so long as the tribute was regularly paid. To the south the Chero chiefs retained their independence, but the north was controlled by Hindu or Muhammadan nobles. Here the chief family in the beginning of the 18th century was that of the Raja of Sonpura, who was recognized by the Muhammadan Government as

* H. Blochmann, *ib.*

the zamindar of *parganas* Japla and Belaunja; but the family was dispossessed, presumably for some act of disloyalty, and the two *parganas* were granted by the Emperor Muhammad Shah to the family of Ghulam Husain Khan, the author of the *Sair-ul-Mutakharin*. The Raja of Sonpura did not submit quietly to this summary ejection but fought every inch of ground; and it was only after a long and protracted struggle that the Nawabs succeeded in gaining possession of part of the territory granted to them. Here however they held considerable power. Nawab Hedayat Ali Khan, the father of the author of the *Sair-ul-Mutakharin*, was at one time Deputy Governor of Bihar, and, his son says, " bore an unbounded sway. He was Governor of all that extensive tract of ground which stretches as far as Chota Nagpur; and he commanded also over Siris and Kutumba, two districts that had been leased out to our family from a great number of years ".

In 1720, according to Shitab Rai, as the rulers were still refusing to pay their tribute, Palamau was again invaded by the Subahdar Sarballand Khan, who was bought off by a sum of Rs. 45,000 in cash and Rs. 55,000 worth of diamonds. In the *Sair-ul-Mutakharin* we find a reference to an expedition which the Nawab undertook about 1740 to subdue the chieftains of the hilly country. " As he sought to raise his character and to acquire renown, the Raja of Ramgarh became of course the object of his attention. This Raja was the most powerful Gentoo zamindar of the hills, and so considerable and warlike that the Viceroy of the Province had hardly any control over him. He was joined in this design by Raja Sundar Singh and Raja Jai Kishun Rai, both zamindars of the Palamau country, as well as by some other zamindars of Siris, Kutumba and Sherghati. Supported by such a confederacy, he laid siege to the fortress of Ramgarh and at last took it. After which, he advanced some journeys more into the hilly country, and after having settled it he was taking some rest from the fatigues of that expedition, when on a sudden intelligence was brought by some trusty persons that Raghuji Bhonsla Pandit had sent his own Pradhan at the head of 40,000 horse to conquer Bengal, and that in a few days they would pass close to him through the hills on their way to that country. He held consultations with his friends, as the forces he had with him were by no means equal to the task of barring the passage to such invaders. They all advised him to quit the hilly country.

and he accordingly descended and encamped at the foot of that chain. In a few days the Marathas rushed through it, and turning towards Pachet and Mayurbhanj they fell upon the Midnapur country".*

Palamau however seems to have escaped the ravages of war at this period, though the Nawab raised troops to support the Emperor Shah Alam in his invasion of Bihar (1759-61). He founded the town of Husainabad and for many years lived there quietly until, says his son, "he was pleased to depart to the merciful mansions of the Omnipotent King and was inhumed in the town which he had founded". On his death, Ghulam Husain Khan at once went to Murshidabad and there had the patent of the family *jagir* confirmed in his own name (1765).

Shortly after this the feuds of the Cheros led to the intervention of the British. For a long time the country had been in a state of disturbance owing to the struggles between rival factions for the chief place. In 1722 a rebellion broke out in which the ruling chief Ranjit Rai was murdered, and his place taken by Jai Kishun Rai, the head of the Babuan, as the members of the younger branches of the ruling Chero family were called. The Babuan were supported in their action by Thakurai Amar Singh, a descendant of Puran Mal and the last common ancestor of the Chainpur and Ranka families. A few years afterwards Jai Kishun was himself shot in a skirmish with some of Ranjit Rai's relatives in the Chetma pass near Satbarwa and Chitrajit Rai, grandson of Ranjit Rai, was made Raja. Jai Kishun's family fled to Maigra in the Gaya district, and took refuge with one Udwant Ram, a *kanungo*, who in 1770 took Gopal Rai, Jai Kishun's grandson, to Patna, and presented him to Captain Camac, the Government Agent, as the rightful heir to the Palamau *raj*. At this time the representatives of Chitrajit Rai also were in negotiation with the Controlling Council at Patna, but the Council, which was interested rather in the collection of its revenue than in these family disputes, decided that the first thing to be done was to take possession of the Palamau fort. To this proposal Chitrajit's Diwan, Jainath Singh, who was in possession of the fort, refused to accede even though the Council offered to recognize Chitrajit as Raja

INTER-
VENTION OF
THE
BRITISH.

* Raymond's translation of the *Sair-ul-Mutakharin*, reprinted at Calcutta, 1902.

on a revenue fixed at Rs. 5,000 for ten years. This refusal induced the Council definitely to support the cause of Gopal Rai, and Captain Camac marched from Patna on January 21st, 1771, and reached Palamau fort by the end of the month "without a shot fired". Shortage of provisions and the fact that he had marched more quickly than his heavy gun could follow prevented him from attacking the fort till February 18th, on which date a two days' bombardment began. The point selected for bombardment was a part of the wall built of brick which Captain Camac was informed was thinner than the other parts. According to the local story this weak point had been deliberately left by Medni Rai so that, if his family should ever be driven from the fort, they should have a ready means of re-entry and it is said to have been Udwant Ram who pointed it out. On the third day storming parties advanced against the breach and against the Nagpur gate, whereupon the garrison abandoned the fort and fled across the Auranga before they could be intercepted. Chitrajit Rai fled to Ramgarh and the Thakurais, after a further defeat in June, fled to Sirguja.

Settlement
by the
British
with Gopal
Rai.

Formal possession was now taken of Palamau by the British. Gopal Rai was made Raja on an annual tribute of Rs. 12,000 which was fixed for three years; and Udwant Ram was appointed *kanungo* of the *pargana*. Owing to the opposition of the Thakurais this three years' settlement soon broke down and in February 1773 a five years' settlement was substituted for it, in which Gajraj Rai and Sugand Rai, relatives of Gopal Rai and ancestors respectively of the Bistrampur and Deogan families, were associated with him, the revenue demanded being Rs. 6,000 in the first year, Rs. 8,000 in the second and Rs. 12,000 for the next three. In 1774 the control of Palamau was transferred at the instance of Warren Hastings from Patna to Calcutta and in 1775 Philip Francis recorded a minute in which he pointed out the inadequacy of the revenue and urged that "a regular and impartial bandobast" should be made. But the Company's hold upon Palamau was insufficiently strong and Philip Francis' influence waned. Though the British had assumed the government of the country, it was not till many years later that anything like settled order and an organized administration could be introduced. Gajraj Rai and Sugand Rai soon began to play for their own hands in opposition to Gopal Rai, who was still under the influence of Udwant Ram.

Unfortunately for him Udwant Ram presumed too far on his influence and alienated the affections of Gopal. He was supplanted as a favourite by Shiva Prashad Singh, nephew of Jainath Singh, the *diccan*, who, with the assistance of Gajraj and Sugand, succeeded in inducing Gopal to summon Udwant Ram to his new palace at Shahpur, now a picturesque ruin on the west bank of the Koil opposite Daltonganj, and there to have him brutally murdered. The relatives of Udwant Ram appealed for assistance to the small detachment of British troops at Lesliganj which marched to Shahpur and arrested Gopal with his brother Karanpal. Gopal was taken to Chatra for trial and died in captivity at Patna in 1784.

A period of confusion followed. The successor of Gopal Settlement was Basant Rai, his minor brother. Gajraj assumed the position of manager, while Sugand and the Thakurais under Shiva Prashad Singh fell into opposition to him. In 1783 Basant Rai died and, after a three years' struggle with his mother, a period known as the "amildari of the Tikaiteen," Shiva Prashad Singh, who had meanwhile been making his peace with the British, was appointed manager on behalf of Churaman Rai, a minor step-brother of Basant Rai. By the terms of this settlement, which was made by Mr. Matthew Leslie in 1786, the manager was required to manage the estate in a proper manner and the annual sums to be paid by the old *jagirdars* were fixed: the Deogan estate was settled with Sugand Rai and the Bistrampur estate with Gajraj Rai's eldest son, Chhatarpati, while the Thakurais also secured a goodly portion. These terms were continued by the Decennial Settlement of 1789. From assets amounting apparently to just under Rs. 20,000 a year, the estate had to pay a Government revenue of Rs. 12,182 in addition to maintaining the police at a cost of about Rs. 3,000 a year. In addition to this the manager, who was himself one of the principal *jagirdars*, introduced a system of commuting the rents payable by the *jagirdars* on terms favourable to them; the rents of these tenures were at the same time reduced on other pretexts and their extent increased by various means. The Raj was therefore already in difficulties in 1793 when Raja Churaman Rai came of age and assumed control. For some years his revenue was paid by assigning the revenues of particular estates and villages to be collected by a *sazawal* appointed by Government; while the Raja provided for his own needs by commuting further portions of his diminishing income for

lump sum payments. He had recourse also to resuming the subordinate tenures, a step which provoked general indignation and led directly to the Chero insurrection in 1800. Once more British troops were called in to operate against the insurgents under the command of Colonel Jones. The insurgents fled to Sirguja and in 1801 it became necessary to march two battalions into that state in order to enforce reparation for their outrages. When the insurrection had been quelled things went from bad to worse. The Raja was reduced to bankruptcy and the administration to disorder.

EARLY
BRITISH
ADMINISTRATION.

The system of collecting the revenue through a *sazawal* was discontinued and an Assistant Collector, by name Mr. Parry, was deputed to see what suitable arrangements could be made for realizing the revenue. He on his own authority annulled the *sanads* of Churaman Rai and re-established the settlement of Mr. Leslie. This action was repudiated by Government, but no steps were apparently taken to give effect to their orders. The state of uncertainty continued and the revenue remained in arrears till eventually in 1814, on the advice of Captain Roughsedge, the estate was put up to auction and was bought in by Government for Rs. 51,000. The following extract is taken from Hamilton's description of Hindustan (1820). "In 1814, arrears having accumulated to the amount of Rs. 55,700, owing to the incapacity of the Raja Churaman Rai, and the refractory conduct of the disaffected *jagirdars*, the *pargana* was brought to the hammer, and purchased by Government for Rs. 51,000. The general regulations for the public dues and administration of justice had before extended to this estate, in common with the other places dependent on the Bengal Presidency; but in consequence of the wild state of the country, consisting chiefly of hills and forests, and the rude manners of its inhabitants, these regulations could not be said to have more than a nominal operation in the interior. In fact, the realization of the revenue partook more of the nature of voluntary contributions than of that active and punctual enforcement of the rights of Government which was practised in all the other old districts, and from which the landholders of Palamau had no peculiar claims to exemption. Besides these reasons, being a frontier station, it became of importance to vest the possession of the *pargana* in a person possessed of sufficient firmness to coerce the *jagirdars*, without oppressing them by illegal exactions or other severities.

“ For the accomplishment of these purposes, Raja Fateh Singh was selected, but he died in 1814, while the arrangement was under discussion, and at the recommendation of Captain Edward Roughsedge, then commanding the Rangarh Battalion, the rights of Government were transferred to his son Raja Ghansham Singh. In effecting this measure, Government made a considerable pecuniary sacrifice; but the objects proposed to be carried into execution were important; as, besides rewarding a loyal and meritorious family, it provided for the internal management of the estate, for the realization of the revenue, and eventually for the general protection of a vulnerable frontier. It was at the same time deemed of primary moment that the rights and immunities of the *jagirdars* should be maintained inviolate, for the furtherance of which object it was ordered that the amount of land-tax payable by each *jagirdar* respectively should be endorsed on the back of the document which transferred the district to Raja Ghansham Singh, in order to prevent future litigation and to give stability to the arrangement. Nor did the prior zamindar, Raja Churaman Rai, sustain any real injury by the sale of his estate. He had long been a mere cipher in its management and nearly an idiot in understanding, dissolute, extravagant, and thoughtless, a character which unfortunately applies with too much justice to almost all the jungle zamindars. He was so indolent as wholly to abandon his station and responsibility, and was always ready to give *carte blanche* to any person who would undertake to supply him with 5 or 6 rupees daily for his personal expense. This miserable chief of a distracted territory had no lineal heirs and the collateral pretender was utterly unfit for the vocation. ”

The grant of Palamau to Raja Ghansham Singh of Deo on an annual revenue of Rs. 9,000 and with the stipulation that the rights of the *jagirdars* should be maintained, had been made as a reward for services which he and his family had rendered on several occasions in quelling the disturbances of the turbulent Cheros and Kharwars, and it might have been expected that he would have been able to control them. It was stipulated that the revenue assessed on the *jagirdari* tenures in 1789 should not be increased, but a protracted correspondence followed to determine what these assessments had been, which was only cut short in 1817 by another general insurrection engineered by the *jagirdars* who were

again agitated by attempts to resume their tenures on the part of the Raja. As a result of this insurrection the estate was taken under *khass* management in 1819 and has so remained ever since.

Until 1800 Palamau had been under the revenue jurisdiction of Ramgarh : in that year it was transferred to Bihar. The Assistant Collector who was in charge of Palamau corresponded until 1816 with the Collector of Bihar, but he was then directed to correspond direct with the Board ; and in the following year he was placed under the Board of Commissioners for Benares and Bihar, and told to correspond with them through the Collector of Bihar. In 1819, the year in which Government took direct possession of the Palamau estate, the Ramgarh collectorate was established and Palamau attached to it. These constant changes of jurisdiction, combined with the usual transfers of officers, led to correspondence being mislaid or overlooked and added to the difficulty of administering an area for the proper solution of the problems of which Government found themselves inadequately supplied with information. Fresh reports were constantly being called for by Government which saw that there would be no peace in Palamau till the various agrarian difficulties were set at rest. But before these matters could be settled, the Great Kol rebellion of 1832 occurred : the outbreak was worst in Ranchi district, but the Cheros and Kharwars of Palamau also joined in. Troops had to be marched into Palamau and the insurgents were defeated near Latehar. After this occurrence the local administration was again reorganized and in 1834 Palamau was incorporated in the Lohardaga district under the South-West Frontier Agency. The headquarters of this district were at Lohardaga till 1844 and then at Ranchi. From 1852 to 1859 a Subdivisional Officer with jurisdiction also over Sirguja and Udaipur held his office at Koranda, a village which lies over the Sirguja border about ten miles south-west of Mahuadani : the site of the bungalow can still be seen, and the villagers remember that a house once stood there. The first Subdivisional Officer was Mr. Emerson and the next Mr., afterwards Sir, Rivers Thompson, who subsequently became Lieutenant-Governor. A more unsuitable headquarters from the point of view of Palamau could hardly be imagined : and the village was also found to be unhealthy and ill-supplied with the necessaries of life. The Mutiny of 1857 finally proved how

unsuitable a place it was. and Palamau was formed into a separate subdivision with headquarters that were fixed first at Lesliganj, where the revenue had been collected for some years, and afterwards in 1862 at Daltonganj.

In August 1857 two companies of the Ramgarh battalion THE INDIAN
MUTINY. mutinied at Hazaribagh, and when Lieutenant Graham advanced upon the mutineers from Ranchi, they retired into Palamau. The following account of the course of the Mutiny in Palamau is taken from the "Minute of the Lieutenant-Governor on the Mutinies as they affected the lower Provinces".

"The population of Palamau district is composed chiefly of two tribes, the Cheros and the Kharwars, with a sprinkling of Kols and other savages, who took little part in the outbreak, and a few Brahmans, Rajputs and others, who were opposed to the insurgents. The Cheros, a spurious family of Rajputs, said to have originally come from Kumaon a few centuries since, dispossessed the original reigning family and established one of their own chieftains in their room. His descendants continued long to hold the chiefship and the representative of the family, the last Raja, died within the last few years, leaving no direct heirs. The Cheros having thus established themselves, strengthened their position by conferring *jagirs* on their followers, and numbers of these *jagirdars*, with impoverished and deeply mortgaged estates still exist. The Kharwars are also settlers, said to have come originally from the hills west of Rohtas. They are divided into several clans, of which the principal are the Bhogtas, with whom alone we are now concerned.

"This tribe, inhabiting an elevated plateau between the high lands of Sirguja and the low country of Palamau, from which they are further separated by a range of hills, of which they hold the passes, and possessing almost inaccessible fastnesses, have been long known as a race of turbulent freebooters and their late chief died an outlaw. On his death it was considered a wise policy to confer this territory in *jagir* on his sons, Nilambar and Pitambar, with a nominal quit-rent, and the policy was long successful in suppressing the natural marauding tendencies of these chiefs. Unfortunately, however, Pitambar was at Ranchi when the outbreak took place, and thinking that here was the end of British rule, and still further confirmed in this opinion by the behaviour of the two

companies of the 8th N. I., who passed through Palamau on their way to join Amar Singh, the two Brothers determined on declaring their independence, their first efforts being directed against the loyal Rajput *jagirdars*, Thakurai Raghubar Dayal Singh, and his equal loyal cousin Thakurai Kishun Dayal Singh, with whom they had long been at feud. Many of the Chero *jagirdars* were induced to join them, partly on the promise made of placing a Chero chief on the throne, partly, no doubt, in the hope of retrieving their now impoverished and decayed fortunes; and late in October a force of about 500 Bhogtas, with others of the Kharwar clans and a body of Cheros, under the leadership of Nilambar and Pitambar, made an attack on Chainpur, Shahpur and Lesliganj. The attack on Chainpur, directed as has been said against the loyal zamindars, Raghubar Dayal and Kishun Dayal Singh, on account of ancient enmities, was repulsed; but at Lesliganj they succeeded in doing some damage, destroying the public buildings, pillaging the place, and committing some murders. Lieutenant Graham, who was at this time officiating as junior Assistant Commissioner in the district, having advanced with a small body of not more than 50 men, the Bhogtas retreated into the hills of Sirguja, whither, in consequence of the smallness of his force, he could not pursue them, and he was obliged to await reinforcements at Chainpur.

“By the end of November the whole country appeared to be up in arms, and Lieutenant Graham, with his small party, was shut up and besieged in the house of Raghubar Dayal, whilst the rebels were plundering in all directions. It had been proposed to send the Shekhawati Battalion into Palamau; but at my urgent request two companies of H. M.’s. 13th L. I., which were at this time quartered at Sasaram, were directed to proceed under command of Major Cotter to the relief of Lieutenant Graham. I at the same time called upon the Deo Raja to furnish a contingent for service in the disturbed district. On the 27th November the station of Rajhara had been attacked by a very large body of Bhogtas, and Messrs. Grundy and Malzer, who were employed there on the part of the Coal Company, after holding their house as long as possible at last with some difficulty made their escape.

“The two companies under Major Cotter, with two guns, accompanied by Mr. Baker, the Deputy Magistrate of Sasaram,

crossed the Son near Akbarpur on the 30th November. Instructions meanwhile had been sent to Lieutenant Graham that on being relieved he was at once to fall back with the force, advancing again hereafter when he should have the means of doing so. The detachment reached Shahpur on the 8th December, and were joined by Lieutenant Graham. One of the principal leaders of the insurgents, Debi Baksh Rai, was at this time captured. On the advance of the force, the rebels retreated; but burnt the village of Manka, near Palamau Fort, and destroyed the house of Bhikari Singh, a zamindar of some influence, who had lent great assistance to Lieutenant Graham. Major Cotter was ordered to return to Sasaram *via* Sherghati to clear the *ghats* in that direction; but the rebel force seemed to be breaking up, the capture of Debi Baksh Rai noted above had the effect of disheartening them, and the Deo Raja having now joined with his contingent of 600 matchlockmen and 100 sowars, I permitted that officer to return, and, advancing towards his former position, he reached Kishunpur on the 22nd December. Patan Ghat, which had been held by the Bhogtas, was abandoned on his approach. The rebels also withdrew from Chainpur, having made an unsuccessful attack on Ranka fort, where they were repulsed by Kishun Dayal.

“ By this time Lieutenant Graham had received a further reinforcement of 600 men, supplied by the Sarbarahkar of Sirguja, and was able not only to maintain his position, but to act on the offensive, and hearing that Permananda, Ilakadar of Kunda, was in the neighbourhood, he sent out a party which surprised this chief, the most influential leader of the Kharwar tribe, with four of his principal men and 75 followers. Nilambar Sahi was still collecting men, and had lately plundered two villages; he, however, kept most carefully to the jungles, and allowed no opportunity of attacking him. Sirguja was also invaded by the followers of the Singrauli Raja, a contumacious dependent of the Rewah Raja, from whom he had no authority for thus acting.

“ On the 16th January Captain Dalton himself started for Palamau with 140 men M. N. I. under Major MacDonnell, a small party of Ramgarh Cavalry, and a body of matchlockmen under Parganait Jagat Pal Singh, a chief who on this and other occasions displayed very remarkable loyalty and attachment to the Government, and has been rewarded with

a title, a *khilat* and pension. He reached Manka on the 21st January, and being joined during the night by Lieutenant Graham, next morning after a reconnaissance of the Palamau Fort, finding that it was held by the enemy, they determined on an immediate attack, and advancing in three columns, against which the enemy for some time kept up a brisk but ill-directed fire, succeeded in dislodging them, when they fled, leaving guns, ammunition, cattle, supplies and baggage behind them. Ten bodies of the enemy were found; our loss amounted only to one killed and two wounded. Letters to Nilambar and Pitambar Sahi and Naklout Manjhi were found with the baggage, and amongst them communications from Amar Singh, promising immediate assistance from Kuar Singh. Some leading insurgents were captured about this time. Tikait Unaras Singh and his Diwan Sheikh Bhikhari were convicted of being concerned in the rebellion, and executed.

“ The Commissioner remained at Leslieganj till the 8th February, collecting supplies and making preparations, and he now determined on forcing the passes into the Bhogta country, having with him a force of upwards of 2,000 men, whilst that of Nilambar and Pitambar were said to be much reduced and not to number more than 1,000. Meanwhile, he had issued *parwanas* for the attendance of the various *jagirdars*, most of whom readily responded to his call; but the most powerful and influential of them all, Babu Bhawani Baksh Rai, head of the Chero family, did not, for some time, make his appearance, and was said to be collecting a large force to oppose Captain Dalton, and to have entertained a number of the Ramgarh mutineers. On the 3rd of February, however, he too came in, and thus removed a principal obstacle to our onward movement. Having divided his force, Captain Dalton sent one body with Kishun Dayal Singh and others to Shahpur to advance against the Baghmara Ghat, whilst he himself moved to the attack of the Tungari Ghat. As he approached this place on the 10th February, he learned that the insurgents, who had held possession of the pass, were plundering the village of Harnamanr in his immediate neighbourhood. Lieutenant Graham, with a party of sowars, dashed on and succeeded in intercepting the enemy, and rescuing a band of captives and a herd of cattle which they were in the act of driving off. Three prisoners were also taken, one a leader of some consequence. Two out of the

three were hanged, whilst the third was kept for the sake of information, which he seemed able and willing to communicate.

" No opposition was attempted to their entering the Bhogta country, and on the 13th they reached Chemu, on the banks of the Koil, the principal residence of the insurgent brothers, where they had a fortified house. Captain Dalton crossing the Koil, the rebels did not await his attack in the village, but retreated and took up positions behind masked breastworks of stones on the sides and ridge of a hill overhanging the village. These were carried in succession, and the enemy put to flight. A dafadar of the Ramgarh Cavalry was killed at the beginning of the flight. The village and the fortified house were afterwards destroyed. as was Saneya, another stronghold of the rebels close to Chemu, which was also found deserted. Large quantities of grain were seized, as well as herds of cattle; and several herdsmen, who had been captured by the rebels, were released.

" The Commissioner remained in the Bhogta country till the 23rd of February but was not successful in capturing the ringleaders, Nilambar and Pitambar. Parties were constantly sent out in all directions, who penetrated to their hill and jungle fastnesses, in some instances as was evident, just as the fugitives had made their escape. A few influential men were taken; but neither threats nor promises had any effect in inducing them to reveal the hiding-places of their chiefs. A full retaliation was, however, exacted for all the mischief done by them. Their villages were destroyed, their goods and cattle seized, and their estates confiscated to the State; but whilst stern justice was thus meted out to the inciters of this rebellion, every endeavour was made to conciliate their less guilty followers and the inhabitants of the country, which now seemed to be gradually settling down.

" In the Nawagarh hills a body of rebels was collected in the middle of March under Ganpat Rai and Bishunnath Sahi. Captain Dalton proceeded to Lohardaga with the intention of attacking them, but falling ill was obliged to depute the duty to Captain Oakes, who with a party consisting of Madras Rifles, Ramgarh Irregular Cavalry, and 160 of the Kol and Santal Levy, under the command of Captain Nation, by a rapid march succeeded in surrounding the

enemy, who were so completely surprised that they made no resistance. Bishunnath Sahi was captured on the spot, and Ganpat Rai, who succeeded for the time in making his escape, was soon taken and brought in by some zamindars and matchlockmen, who had been sent in pursuit. These rebels were afterwards tried, found guilty and executed.

“ Nothing worthy of being recorded has since happened in the district of Palamau, and the restoration of complete tranquillity and confidence seems now only to be a question of time. Nilambar and Pitambar Sahi are still at large, miserable fugitives deserted by their followers, and the Commissioner is of opinion that no further danger need be apprehended from them. I must not quit the subject without recording my high admiration of the conduct of Lieutenant Graham, who, without another Englishman near him, surrounded by thousands of the enemy, never thought of retreat, and by maintaining his post, prevented the district from falling entirely into the hands of the insurgents. ”

To the above account it will suffice to add that Nilambar and Pitambar Sahi were eventually captured, tried and hanged; and with their capture the district was tranquillized. Thakurai Raghubar Dayal Singh of Chainpur, Thakurai Kishun Dayal Singh of Ranka, and Bhikhari Singh of Mankah were granted *jagirs*, in recognition of the loyal services they had rendered.

Formation
of the
district of
Palamau.

After the Mutiny, as already stated, Palamau was formed into a separate subdivision with headquarters that were finally fixed at Daltonganj. In 1871 the *parganas* of Japla and Belaunja, containing 650 square miles, were transferred to it from the district of Gaya, in which they had hitherto been included. In 1891 it was proposed to constitute Palamau a separate district in order to secure greater efficiency of administration. It was pointed out that the district of which it formed part had the enormous area of 12,044 square miles, equal in extent to the Presidency and Chittagong Divisions; that the people, taken as a whole, were as different from the inhabitants of the remainder of the district as the latter from their neighbours on the east and that the land tenures were as different from those in Chota Nagpur proper as the latter were from those in Lower Bengal. Its distance from the district headquarters added to the difficulties of administration, the nearest part of the subdivision being 60 miles

and the furthest part 150 miles from Ranchi, while Daltonganj was itself 104 miles distant from that place. It was accordingly recommended that Palamau should be formed into a separate district, with the addition of the Tori *pargana*, where conditions were somewhat similar, the people, their manners, customs, and land tenures, being different from those of the rest of Chota Nagpur and more like those of Palamau. These proposals were accepted; it was realized that Palamau required the close and immediate supervision of a district officer; and accordingly it was constituted a district from January 1st, 1892, the first Deputy Commissioner being Mr. W. R. Bright, C.S.I., I.C.S.

CHAPTER III.

THE PEOPLE.

GROWTH OF
THE
POPULATION.

The population of the district at the last census, that of 1921, was 733,394 or an increase of 309,339 over the population recorded half a century before in 1872. The increase

Year.	Population.	Increase over last census.
1921	733,394	45,684
1911	687,710	67,618
1901	620,092	22,820
1891	597,272	45,859
1881	551,413	127,358
1872	424,055	...

from census to census is shown in the marginal statement. The large increase recorded after the first census is an exaggeration of the actual facts owing to the incomplete nature of the first enumeration. Between 1891 and 1901 the rate of progress

was retarded owing to two famines, in 1897 and 1900, and a high death rate in the latter year: an actual loss of population occurred in the east of the district. The rate of increase was accelerated again in the following decade between 1901 and 1911, especially in the south of the district; in Husainabad in the north there was a slight decrease. Between 1911 and 1921 there was a further increase, though at a reduced rate. No special circumstance affected the health of the population during these ten years until 1918. The rainfall of that year was above the normal, but its distribution was fatal. The monsoon broke late, and the time available for ploughing was so curtailed that the people in many cases sacrificed the *bhadai* for the *aghani* crops. In July floods occurred that completely upset all ideas then obtaining on the subject of high flood levels, and most of the maize and other *bhadai* crops that had been sowed were washed away. By the middle of August the rains had practically stopped, and by the middle of September they had

stopped altogether. On the unirrigated lands, which are for the most part in the possession of the smaller tenants, the rice crop was a failure, and the area sown with *rabi* crops was only of half its usual extent. The district was only saved from a disaster by the reserve of wealth that had been accumulating as the result of several years of good crops and the boom in the lac trade during the war, and thanks also to a good *mahua* crop. Meanwhile the suffering caused by the influenza epidemic of this year was greater than in any other district of the province: the death rate from 'fever' rose to the unparalleled height of 59.2 per mille and the total number of deaths recorded in the year was 49,000 or 14,000 in excess of the number of births. The epidemic continued during the first months of the following year and the birth rates of the next two years were naturally low. In spite of the disasters, the increase of population during the decade was 45,684 or 6.64 per cent. The increase was greatest in Chhattarpur, Husainabad and Garhwa, while losses occurred in Ranka, Mahuadanr, and Balumath. Generally speaking, the population increased in the north, where it was most, and decreased in the south, where it was least dense.

The average number of persons to the square mile in the district is only 149 as compared with the provincial average of 409; the density is less than in any other district in the province except Angul. The population is densest along the valleys of the larger rivers, the Koil, the Son, and the Amanat. The incidence is greatest in Daltonganj (239 per square mile) and Garhwa (215) thanas; and least in Ranka (73) and Mahuadanr (55), where there are extensive areas of Government and private forest. Even in the most densely populated areas there is much uncultivated land and it is possible to go considerable distances close to Daltonganj and Garhwa without seeing field or habitation.

DENSITY OF POPULATION.

On the night of the last census 31,000 persons who had been born outside the district were enumerated in Palamau, while 36,000 persons born in Palamau were enumerated in other parts of India, leaving a balance adverse to the district of 5,000. Out of these 31,000 immigrants, 23,000 came from adjacent districts in the province; and out of the 36,000 emigrants, 21,000 were found in non-contiguous parts of other provinces, chiefly in Assam. Apart therefore from the organized emigration to the tea gardens of Assam, which

MIGRATION.

had increased abnormally in 1918-19, the stream of migration sets towards Palamau where the density of population is less than in the adjacent districts of Bihar. The jungly character of the western boundary of the district accounts for the few migrants that pass to and fro between Palamau on the one hand and Mirzapur and Sirguja on the other.

Emigration to the tea gardens in the Duars is not regulated; that to Assam is regulated under the Inland Emigration Act and is under the supervision of the Assam Labour Board. There is an agent of the Tea Districts Labour Association in Daltonganj, who controls the operations of the recruiting sirdars in the district: he accepts also any would-be emigrants from Sirguja. The number of persons recruited by him since 1917-18 and the number of garden sirdars employed to recruit them is as follows:—

Year.			Labourers.	Dependants.	Total.	Garden Sirdars.
1917-18	...	...	255	133	388	554
1918-19	...	...	4,709	3,457	8,166	2,413
1919-20	...	...	1,609	945	2,554	1,517
1920-21	...	...	648	600	1,257	261
1921-22	...	...	430	242	672	719
1922-23	...	...	227	96	323	551
1923-24	...	...	110	38	148	451

A sudden increase in the emigration to Assam, such as occurred in 1918-19, is now-a-days an invariable accompaniment of scarcity in Chota Nagpur.

TOWNS AND VILLAGES.

The only places treated as "towns" for the purpose of the census were Daltonganj (9,817) and Garhwa (9,626), which are of almost the same size although only the former is a municipality. Both are centres of local trade, though at the time of writing it appears that a formidable rival to Garhwa is being developed in the state of Sirguja. The remainder of the population reside in 3,120 villages, and more than half of them, 68 per cent., live in villages with a population of under 500. Small and scattered villages are therefore the rule.

The number of languages spoken in Palamau is greater LANGUAGE. than in the districts of Bihar but less than in the adjacent district of Ranchi. Ninety-three per cent. of the population speak Hindi or Urdu, six per cent. speak Dravidian languages, and one per cent. Munda languages. Amongst the Dravidian languages the most important is Oraon, spoken by 42,000 persons; amongst the Munda languages Korwa is spoken by nearly 9,000; and Palamau is the only place where Birjia speakers were recorded in any numbers.

The great majority of the people speak the dialect of Bihari Hindi known as Bhojpuri, but in the north-east the Magahi dialect is used. The purer form of Bhojpuri, known as Standard Bhojpuri, is spoken in the strip of country along the bank of the Son, but the dialect here spoken has several divergences from the language spoken in Shahabad. In the remainder of the district the people speak a corrupt form of Bhojpuri which has undergone modifications, partly by the influence of the Magahi dialect, which surrounds it on three sides, and of the Chhattisgarhi spoken to its west, and partly owing to the introduction of words into its vocabulary which belong to the languages of the non-Aryan population. It is generally known as Nagpuria or the language of Chota Nagpur proper; but it is also known as "Sadri", and is called by the non-Aryan Mundas "Dikku Kaji" or the language of the Dikkus or foreigners. The word Sadri in this part of the country is applied to the language of the settled as apart from the unsettled population; thus the corrupt form of Chhattisgarhi, which is spoken by the semi-Aryanized Korwas who have abandoned their original Munda language, is known as Sadri Korwa, as compared with the true Korwa language belonging to the Munda family which is still spoken by their wilder brethren.*

Magahi, i.e., the dialect of Magadha or south Bihar, is current in the north-east of Palamau, and does not differ in any material respect from the language spoken in the adjoining district of Gaya.

Oraon or Kurukh is spoken mainly in the south of the district; and Munda dialects by various tribes of aboriginal descent.

According to the census of 1921, 84 per cent. of the RELIGION. population of the district were Hindus, 9 per cent. Muham-

* C. A. Grierson, *Linguistic Survey of India*, Vol. V, 1903.

madans, and 6 per cent. Animists. The proportion of Hindus to Animists is apt to vary from census to census owing to the extreme difficulty of deciding where Hinduism begins and ends among the semi-Hinduized tribes. The increase in the number of Animists at the last census over the 1911 figures was 24.2 per cent., which is partly to be accounted for by this difficulty and partly by the fact that just before the census there had been an anti-Hindu religious revival, the so-called Tana Bhagat movement, which would naturally tend to increase the number of Animists.

Hindus.

The number of Hindus is 617,690, but the most numerous Hindu castes are the Bhuiyas (87,000) and the Kharwars (59,000) which are only partly Hinduized and which with other similar aboriginal and semi-aboriginal castes and tribes are being gradually assimilated into the Hindu social system. These castes still retain in a large measure the habits and beliefs of their forefathers and the line of division between them and the Animists is very faint. That the Hinduism practised in large areas of the district is not of the orthodox Brahmanical variety is shown by the fact that in the area of over 2,000 square miles included in the jurisdictions of the police-stations of Balumath, Chandwa, Latehar, Kerh, Garu, Mahuadanr, Ranka, and Bhandaria, there are considerably less than 2,000 Brahmans, including man, woman, and child. In these and other parts of Palamau popular Hinduism consists largely in the worship of spirits, mostly evil, and a belief in witchcraft, sorcery, and fetichism; and the Brahmanical rites of orthodox Hinduism are far less prominent than the animistic observances of the aboriginals. The following descriptions, which are based mainly on Mr. Forbes' Settlement Report, of three important members of the village community illustrate the state of affairs that still exists.

The Baiga.

The Baiga, or as he is sometimes called in the Tori *pargana*, the *pahan*, is the village priest whose duty it is to propitiate the tutelary deities of the village and to keep away evil spirits. No village is without one and, such is the superstition of the people, that they would rather desert their land than remain without a Baiga. Persons of aboriginal descent are preferred for the post, the belief apparently being that, as they are the oldest inhabitants, they are best acquainted with the habits of the local spirits, and that per-

sons who have Hindu and Brahmanical tendencies could only offer a divided allegiance to the sylvan deities and would therefore not be acceptable to them. Dosadhs and Bhuiyas are often Baigas, and the person preferred is a member of the tribe that first cleared the jungle; but Kahars, Brahmans, and even Muhammadans are, though rarely, found holding the office. Women also sometimes officiate in temporary vacancies.

The chief deity whom the Baiga has to propitiate is the village god, who presides over the sowing and gathering in of the crop and is worshipped at seed time and harvest with offerings of sheep, kids and goats. Symbols of him, in the form of a rough stone daubed with vermilion, are found at the foot of different trees in almost every village throughout Palamau and all castes from Brahmans to Bhuiyas join in his worship. Besides this deity there are a number of evil spirits who are responsible for the appearance of disease among man and beast and the Baiga is bound to offer up the necessary sacrifices to prevent their coming or to drive them away. A good harvest again depends on his exertions, and accordingly it is his duty to propitiate the spirits before ploughing is begun. For this purpose he levies contributions of money, grain, cloth, fowls and goats from the villagers and, until these sacrifices have been performed, no one would think of yoking a plough.

Besides exercising these priestly functions the Baiga is regarded as the depository of village lore. He is supposed to be better informed of all that concerns the village than anyone else, to have a thorough knowledge of its boundaries and to be able to point out each man's tenure, but his knowledge of these matters has now been to a large extent crystallized in and superseded by the record-of-rights. Among the jungle tribes, if he is one of their race or a member of the hereditary priestly family, he is the arbiter in disputes as to land or rent, and the oracle in questions affecting the ancient customs and rights of the village, with all of which he is supposed to be intimately acquainted. The office is hereditary, but should there be frequent sickness in the village, should cattle die or other calamities occur, the Baiga is blamed for negligence in his duties and is ousted from his position. In the event of its becoming necessary to appoint a Baiga, a meeting of the village community is held and the

successor is chosen by vote or, among pure aboriginals, by lot; the individual selected is then called to accept the post and, in the event of his doing so, a day is fixed for the ceremony of installation. On the appointed day the whole village meet in solemn conclave. The village headman presides and calls upon the candidate to state publicly whether he is willing to accept the post. On his giving a reply in the affirmative, the emoluments he will receive and the duties he will have to perform are explained to him and he is then conducted round the boundaries of the village, the different landmarks of which are pointed out to him. After this the whole party return to the place of meeting where the president, taking up the Baiga's wands of office, which are called *chhuri katari*, solemnly hands them to the new incumbent, and the installation is complete. These wands are the sacrificial instruments and are heirlooms of the village; they are presented in the formal manner described above to each successive Baiga and are used solely in sacrifices. In every village there are, or were, lands specially set apart for the support of the Baiga which he holds rent-free. They appertain to the office and cannot be resumed by the landlord. When his jurisdiction extends to two or more villages, he holds land only in the village where he actually resides, while the others make him payments in kind.

The Baiga is often also recognized as the landlord's messenger in the village. This is doubtless because he receives from him a grant of land in return for which he has to help in the extension of cultivation, the calling in of settlers, and the carrying of responsible messages. There is no part of daily life to which his influence is not supposed to extend. It is indeed not an uncommon thing, when there has been a blank beat for tiger, for the villagers to recommend that the Baiga should be taken to task or even chastised for not doing his *pūja* efficiently. In this as in other things the villagers are convinced that failure is due to his laziness or roguery.

The Dihwar.

Some villages, especially those lying to the south of the district, have a functionary called Dihwar or Deora in addition to the Baiga. While the latter propitiates the village deities at the *gaonhel* or village shrine, the former's duty is to see that evil spirits do not disturb the peace of the village. If they are angry, crops are likely to fail; and to safeguard

against this misfortune, they have to be kept in good humour and frequently appeased with offerings of fowls, which are killed in some quiet corner of the village, and afterwards taken by the Dihwar. He is precluded, it is said, from killing animals or going to the village shrine. He is quite distinct from the Baiga and neither interferes with the other, but both are considered equally important for the welfare of the village. The Dihwar is provided with *deorai* lands.

Of the Ojha or exorcist Mr. Forbes has given the following The Ojha. account :—“ Anyone may become an Ojha ; consequently the office is not confined to any particular caste or tribe. The science is regularly taught by professors, but only during the ten days of the Dasahara when by payment of a certain sum anyone who likes can learn the art. Such is the belief in the power of the Ojha that he is called in on every occasion. A Kumhar spoils a lot of tiles or earthen vessels and immediately fancies that his hand has lost its cunning by the influences of some evil spirit. Land won't yield, a cow won't give milk, a bullock dies, or a child sickens—all call for the services of the Ojha. On all these occasions he gets a fee, sometimes in money, generally in kind. He is not very honest, and often imposes on the credulity of the people, and there is no doubt that he and the Baiga often go hand in hand in robbing their unfortunate dupe. For instance, an epidemic appears among the cattle ; the Ojha is at once sent for and requested to exorcise the evil spirit. This he vainly attempts to do, and at last pretends to discover that the evil has been caused by the neglect of the Baiga to perform certain sacrifices. The Baiga when called upon of course admits this, and signifies his readiness to do what is requisite to remove the evil, as soon as the people have provided him with the necessary means. Large quantities of moneys, cloth, grain, etc., are immediately collected from the villagers and are shared in by the two rogues. The mummeries performed by the Ojhas in exorcising evil spirits consist in making passes, blowing with the mouth, and in muttering incantations which are nothing more than a repetition of the names of certain famous spirits. After this they put on a wise look, declare that the spirit has been appeased and that the patient is sure to recover, demand their fee and depart. If, as is frequently the case, the patient does not recover, they fall back on the unanswerable argument—God's will. If all goes well, they get the credit.”

To this it may be added that the Ojhas are consulted not only by the lower classes, but also by the most orthodox Rajputs and Kayasths, by members of the leading families and even, it was reported not many years ago, of the local bar, regarding the birth of a son. If the prophecy comes true, the vow made is religiously fulfilled; and very handsome are the presents the Ojhas sometimes get in this way.

“The people”, Mr. Forbes goes on to say, “are firm believers in the power of witchcraft and the evil eye, and have a wholesome dread of witches or *dains*, as they are called; and one of the most important parts of an Ojha’s duty is the denunciation of these people. From repeated failures the people have not that implicit faith in the Ojhas they once had, but even the most enlightened among the Aryans believe in witchcraft. Not a child can sicken, nor a cow, nor a bullock be struck with disease, but a witch is supposed to be the author. The art practised by Ojhas, they say, can be learned by anyone, but witchcraft emanates from the devil. The witch casts her spell in secret and never declares herself; she wishes a child to die and she has only to say “What a fine, fat child that is” or “How well that child is looking” and the spell is cast. The child is sure to sicken without any apparent cause and die. A mother is proud of her child’s hair, and the witch, who is spiteful in all her actions, in the dead of the night takes a piece of thread, mutters the child’s name, severs the thread, and in the morning, the beautiful hair is gone. Another mode of casting spells adopted by witches, and implicitly believed, is that in which the witch is supposed to come to the house at midnight. Without entering it, with an instrument resembling a native inoculating lancet, she scores certain marks upon the wall of the house, mentioning at the same time the name of the person on whom she is working her spell, and muttering certain incantations. In the morning a *facsimile* of the mark made on the wall appears on the arm or other part of the body of the victim, who always dies. This has been said to occur to several persons in a house, one on each successive night, till at last the whole family have been obliged to fly.

“The ceremony performed by the Ojha in order to discover a witch is called *kansa kurthi*. On these occasions, the Ojha when sent for either calls in the assistance of a brother in the craft or brings with him one or two of his

chelas or disciples who have a smattering of the art. A bell-metal dish is produced and filled with pure water into which a small handful of *kurthi* (a coarse kind of pulse) is thrown. This dish is placed in the sun, and the Ojha, repeating in a low voice certain incantations, looks steadily into the dish, observing the shadow produced by the grains which float on the top of the water. After the lapse of some minutes, he retires to a short distance, and his place is taken by another, who also looks into the dish. The Ojha then proceeds to question him as to what he sees; question succeeds question: now he sees this, now that: but there is of course collusion between the parties, and the person whom it has been previously agreed upon to denounce is eventually named. The Ojha has of course a grand opportunity given him of revenging himself on any person with whom he is at enmity; but when he has no such private revenge to satisfy, a barren woman is generally chosen as the one to be denounced. Murder often follows the denouncement of witches, for which the Ojhas are to be held responsible. The unfortunate woman denounced is perfectly helpless; she cannot hope to be believed, let her deny ever so stoutly; and all she can do is to consent to withdraw the spell."

As a rule, the victims of the Ojhas' denunciations are harmless old women, but some women have as implicit a belief in their powers for evil as the villagers. Thus some years ago there was a case of a young cultivator whose child died one night when he was watching his fields. On his return he found an old hag crouching outside the fence in front of his house. She had swept a piece of ground and laid on it the body of a dead vole with its head pointing towards where the sick child was lying. Behind it were the bodies of three dead grasshoppers and behind them again five clay figures of mice. These she had marshalled in a row muttering to herself the while, and was pushing as if to an attack. When such cases as this occur, it is small wonder that the superstitious terror which is provoked among a people imbued with a firm belief in witchcraft should often be the cause of murder.

The number of Animists returned at the census of 1921 Animists. was 43,319. The difficulty of obtaining these figures and the extent to which they can be relied upon has already been explained. Most of the Animists were recorded in Balumash (12,000), Ranka (7,000), Latehar (7,000), Garhwa (6,000),

Mahuadanr (5,000), and Daltonganj (4,000). Animism is most prevalent in the south of the district.

The creed of the Animist cannot be reduced to a series of definite propositions. Life without hope is impossible, and hope requires a background of optimism: the Animist has a vague belief in an omnipotent being who is well disposed towards men and who can therefore be neglected for all practical purposes. Of more immediate, practical importance are numerous evil spirits, who are ill disposed towards human beings and to whose malevolent influence are ascribed all the woes that afflict mankind. To them therefore sacrifices must be offered. These spirits as sylvan deities, the spirits of the trees, rocks, and streams, and sometimes also of ancestors. There is no regular priesthood, but some persons are supposed to be better endowed with the power of divination than others. When a calamity occurs, one of these diviners or soothsayers is called on to ascertain the particular demon who is offended and requires to be pacified.

Muhamma-
dans.

65,002 Muhammadans were enumerated in the district, of whom more than half (39,000) were Jolahas, weavers and cultivators of the lowest class. There were also 9,000 Pathans, 6,000 Sheikhs, and 1,300 Saiyids. The Jolahas are found throughout the district, the Pathans chiefly in Husainabad and Garhwa, and the Sheikhs in Husainabad and Daltonganj. The Muhammadans are most numerous in the north of the district where the power of the Mughal emperors was most felt and where the two *parganas* of Japla and Belaunja were granted as a *jagir* to officers in the emperor's employ. Most of the present day Muhammadans are descendants of the converts then made, but descendants of the Nawab's family are still to be found at Husainabad. Relations with the Hindus are generally good, except in the north-east corner of the district where the same feeling of hostility is apt to be shewn as in the adjacent area of Gaya.

The Palamau Jolahas are generally ignorant, as the following practice shows. It is the custom of Muhammadans to recite an Arabic text when slaughtering an animal for food; and the local Jolahas, finding it hard to remember the text, laid their difficulty before their Murshid or religious head. This holy man quickly and easily found a solution by breathing on a knife and handing it over to the head of the Jolaha community with the remark that that would serve their pur-

pose. Since then every Jolaha family has used such knives and has been relieved of the necessity of quoting the Arabic text. In the Patan thana they even worship the sun, and two popular deities are the Panch Pir and Sheikh Saddu. The former are propitiated by offerings made periodically and also on special occasions, such as marriages and deaths. Their altar consists of a small mound of earth in a room set apart for the purpose, on which sweetmeats and other offerings are laid. The omission of such offerings is believed to entail serious consequences, and every calamity that visits the family is ascribed to remissness in the discharge of the propitiatory worship. Sheikh Saddu, who has no visible representation, is appeased by sacrifices of goats. It is believed that, unless he is propitiated, he takes possession of women who go into an ecstatic state and pour forth torrents of incoherent verse while under his influence.

Another peculiar ceremony consists of making offerings to the spirits of deceased ancestors. A plate of sweetmeats is set apart for each of the spirits to be propitiated; lamps are lit, and some holy man of the locality repeats verses from the Koran over each plate, calling on the deceased by name. One plate is specially dedicated to Hazrat Bibi; it remains covered, and can only be removed and its contents only partaken of by females.

There are altogether 7,283 Christians in the district, of whom 7,232 are Indians. Nearly all of these are to be found in Chhechhari, where there is a flourishing Jesuit mission* and the only church in the district. In February 1890 a deputation of 70 "Chechariens" visited Ranchi "pour implorer l'aide et la protection des Pères dans leur démêlées avec les tyranneaux du pays".† These were the great days when converts were being made by the thousand in Ranchi district under the inspiration of "chota, mota Lievens Sahib", still celebrated in the songs of the converts. Two days before Christmas in that year Fathers Cardon and Dehon reached Kurund on the hills between Barwe and Chhechhari where the valley is said to have given itself to the mission "en bloc". "J'étais si heureux", wrote Father Dehon, "que j'avais même des velléités de devenir poète."

* See "*La Mission du Bengale Occidental*", by P. Jesson, S.J.

† i.e. the landlords of Chhechhari.

This expedition resulted in 3,000 baptisms, but it was not till November 1894 that the mission secured a permanent home in the valley. "Pour le prix modique de 100 Rs., un petit cadeau au chef de la police,* l'adversaire le plus intraitable, et un paiement annuel de 10 Rs., le Père Dehon devint acquéreur du terrain désiré à Mahuadanr". In February 1896 Father Dehon was well established here, and it was he who built the church, school and bungalow. Here he laboured for the next ten years, and he died of a heatstroke in 1905 in the train at Rajhara as he was returning to his work in Chhechhari in spite of ill health. His remains were first interred at Daltonganj, but were subsequently removed to Mahuadanr.

Nearly all the Christians in Chhechhari are Oraons, whom the Fathers found, unlike those of Barwe, "inquiets et défiant, obstinés et intraitables". The mission passed through a crisis during the Tana Bhagat movement in 1916 when 4,000 defections are reported to have taken place during Holy Week alone. Most of these have now been restored to the fold. Christian and non-Christian Oraons in the valley eat and drink together; indeed there is little to distinguish the one from the other apart from the fact that many Christians wear a crucifix and that they go to church on Sundays. Prayers are read on Sundays in the numerous village chapels by the "masters", who are the principal local representatives of the mission. The superior staff at present consists of one European and one Indian Father, and three Indian sisters of St. Anne. One hundred and twenty boys read in the boys' upper primary school and 100 girls in the girls' lower primary school at Mahuadanr. An industrial school has recently been started in which the pupils are taught to weave on the fly-shuttle loom. Twenty-five schools are maintained in other villages, of which 14 are aided by the District Board.

The only other mission in Palamau is the Church of Christ mission which first came to the district in 1909. The community in Daltonganj now numbers about 100. At that place an aided middle English school with about 60 pupils and an upper primary school with 40 pupils are maintained by the mission, most of the pupils being Hindus. There is

* i.e. the sub-inspector of police at Mahuadanr, whose name is lost in the mists of the past.

also an orphanage containing 25 orphans and a middle vernacular school for girls with hostels attached is to be erected. The mission also began work at Latehar 10 years after it came to Daltonganj, i.e., in 1919. The missionary at Latehar is interested in the co-operative movement in that neighbourhood.

The situation of Palamau between the Chota Nagpur ^{CASTES AND TRIBES.} plateau, the home of the aboriginal races, and the Gangetic valley, with its Aryan civilization, has resulted in a mixed population consisting partly of autochthonous tribes and partly of people of Aryan descent. The following is a brief description of the principal castes and tribes found in the district.

The largest caste is that of the Bhuiyas, a race of aboriginal descent, who number 85,000 souls; of these 38,000, or nearly half, are found in the Daltonganj and Patan thanas along the valleys of the Amanat and Koil. They are numerous also in the adjacent western *thanas* of Hazaribagh. They are a dark well-proportioned race, with black, straight hair, plentiful on the head but scant on the face; they are of medium height, with figures well-knit and capable of enduring great fatigue, but light framed and not presenting any great muscular development. Their features are generally of very much the same cast, the nose slightly elevated and rather retroussé, the eyes well shaped and straight, but never very large or deep set; the cheek and jaw bones are projecting and give breadth and squareness to the face.

They are an offshoot of the great Dravidian tribe of Bhuiyas, which once held considerable power and still numbers nearly two-thirds of a million; but in this district they have become a degraded race, from whom the general labourers and serfs (*kamiyas*) are recruited. Nominally Hindus, the veneer of Hinduism has only recently been laid on, and beneath it may be observed many traces of the primitive Animism common to Dravidian tribes.

The worship of Bir Kuar is especially affected by them, Bir Kuar being a deity believed to have been originally a Bhuiya who was killed for an intrigue with an Ahir woman. Two posts are set up outside the village, and a pit between them is dug and filled with wood, which is set alight. The Baiga or village priest having bathed and put on a yellow robe, sprinkles *ghi* over the fire, and spreads a layer of grass

on it. He then rides through the fire mounted on a pig; the latter is next stabbed to the heart, and the flesh distributed among those present, any portion left over being buried. Another offering consists of a hen which is made to eat rice and then killed. The deity is supposed to attend the sacrifice and to beat his worshippers with a leather whip plied by a man impersonating him.

Ahirs.

The Ahirs or Goalas, with a numerical strength of 47,000, are the most numerous caste of Aryan descent. They also are found in greatest number in the north of the district, from Balumath to Untari. They are cultivators and herdsmen, and are one of the wealthiest classes in Palamau. They are eagerly sought after as tenants, and, it is said, are given various concessions because of the benefit their cattle do to the land by manuring it. The majority, however, even towards the south of the district, find insufficient pasturage, and migrate with their herds to the tablelands of Sirguja on the approach of the hot weather, returning when the rains have set in to graze their cattle in the lowlands.

Like the Bhuiyas, they worship Bir Kuar, who is represented by two wooden posts. The officiating priest calls on the deity to appear, and throwing himself into an ecstatic state, leaps about lashing his body with a hair rope. When this fit has passed, the worshippers consult him about their diseased cattle and hand him rice, which he looks at and then declares whether the cattle will recover. The rice is thrown into the cattleshed in the belief that it will serve as a charm. The legend about Bir Kuar is that he was an Ahir, whose sister was a great witch. This witch taught many young girls the mystic art, the place of rendezvous being near a pool in a forest at dead of night. The participants in the witch's revels had to divest themselves of their clothing, and Bir Kuar coming on them one night took away all the clothes. His sister, ashamed to come out naked, then changed herself into a tigress and began killing all the Ahirs' cattle. In despair, the Ahirs appealed to Bir Kuar, each promising him a horse if he freed them from the tigress. One night when he was sleeping among his buffaloes, the demon tigress came out and tried to kill him, but the buffaloes were so devoted to him that they formed a circle round the tigress and killed her. Ever after that the Ahirs had peace, but when called upon to fulfil their promises, they refused to do so and

compromised by each offering Bir Kuar a clay horse. This, it is said, is the reason why to this day heaps of little earthenware horses may be seen at the foot of every shrine of Bir Kuar, who protects the cattle from the attacks of tigers.

The Kharwars, who number 59,000, are known locally ^{Kharwars.} as Kherwars, and are also called the Atharahazar or Eighteen-thousand, just as the Cheros are known as the Barahazar or Twelve-thousand, in commemoration of the fact that when Bhagwat Rai conquered Palamau the invading army consisted of Kharwars and Cheros in these proportions. They are clearly of aboriginal descent, the lowest among them being of a Dravidian type, very dark with thick protuberant lips and projecting cheek bones. Indolent and extravagant, they have lost most of the *jagirs* which they once possessed and have been reduced to the position of cultivators. Owing to their negligence and sloth, it appears likely that they will be pushed further and further back as cultivation advances. They are inordinately proud of the traditions of their former greatness, and this pride has helped in their downfall, as they are continually hugging the idea that they are, or were, a great people, and make little or no attempt at improvement or progress; most of them follow the plough, but none of them will carry loads upon their heads, considering it derogatory. Socially they are kind and warm-hearted, but are prone to brood over real or imaginary wrongs; and though slow to anger, are very fierce when aroused.

The Kharwars now rank among Hindus and employ Brahmans, but many of the ancient forms of worship remain, and the belief in witchcraft and the power of evil spirits is as strong as among the less civilized aboriginal tribes. They appear to recognize vaguely the existence of a Supreme Being, whom they call by the Hindu name of Parmeshwar; but the really popular deities are various godlings and evil spirits, such as Chandra Rai, a deified Korwa, Chattar Rai, originally a warrior who fell in battle, Goraiya, who is regarded as a deified Kharwar, Hankarmal, an old Rajput king who was slain by an usurper, Mehtarpalhat, a deified Bhat, Purbia, primarily a godling of the Bhuiyas, Chandi, etc. The worship of these deities is generally of the same type, the officiating priest being a Kharwar Baiga and the commonest offering being a goat—preferably a black he-goat—which is first made to eat some rice and then decapitated. The Kharwars, like all

the aboriginal tribes, are very superstitious, and people the jungles and hills with spirits, to whom they offer sacrifices at certain times of the year.

One of the most remarkable of these spirits is Muchuk Rani, also known after the name of the *tappa* which contains her home, as Durjagia Deota; this home or *naihar* is on a hill called Bahuraj situated in the Government village of Juruahar. All Kharwars regard her with great veneration and make sacrifices to her several times during the year; but the most curious ceremony is the triennial marriage of the Rani. On the bridal day the whole of the two villages of Juruahar and Ukkamand ascend the hill singing a wild song in honour of the bride and bridegroom. One of the party is selected as priest, and he ascends the hill in front of the procession, shouting and dancing till he works himself into a frenzy. The procession halts at the mouth of a cave on the top of the hill, and the priest then goes inside and returns bringing with him the Rani, who is represented by a small oblong-shaped stone daubed over with vermillion. A piece of tussar silk cloth is placed on the Rani's head; and a new *dohar* or sheet is placed below her, the four corners being tied together in such a manner as to allow the Rani, who is now supposed to be seated in her bridal coach, to be slung on a bamboo and carried by two men, as in a palanquin. The procession then descends the hill and halts beneath a banyan tree in Juruahar till noon, when the marriage procession starts for the home of the bridegroom, who resides in the opposite range on the Kandi hill in Ukkamand village. On their arrival there, various offerings are presented to the bride; she is then taken out of her palanquin and put into the cave in which the bridegroom, who belongs to the Agaria caste, resides. This cave is supposed to be of immense depth, for the stone goes rolling down, striking the rocks as it falls, and the people all listen eagerly till the sound dies away, which they say, it does not do for nearly half an hour. When all is silent, the people return rejoicing down the hill, and finish off the evening with a dance.

Bhogtas.

The Bhogtas were treated as a separate caste at the last census, but there seems to be little doubt that in this district they are merely a sub-caste of Kharwars. Altogether 9,000 persons were returned as Bhogtas, nearly all in Balumath thana, where they are usually labourers and cultivators.

The Kahars, who number 33,000, are in greatest strength Kahars. in the north of the district, in Daltonganj, Garhwa, and Husainabad. They are good cultivators and are also employed as domestic servants and *palki*-bearers. Their men have acquired an evil reputation for stealing and the women for immorality; it is a local saying that a Kahar with one daughter only works half a day, and one with two daughters not at all.

The Dosadhs (36,000) are to be found in almost every Dosadhs. village, especially in Husainabad, either as cultivators or watchmen. There are some wealthy and respectable families among them, but the greater portion are too indolent to accumulate wealth by honest industry, and have the character of being inveterate thieves.

The Chamars (37,000), specially numerous between Chamars. Garhwa and the Mirzapur border, are the tanners of the district, whose duty it is to keep the cultivators' ploughs supplied with the rude thongs attached to the yokes and to supply the zamindars and villagers with a certain number of shoes every year. The hides of cattle dying in the village are their traditional perquisite, and they are frequently suspected, not without good cause, of poisoning cattle for the sake of their skins. Their womenfolk are the village midwives.

The Brahmans (33,000), most numerous near the towns Brahmans. of Daltonganj and Garhwa, are, as a rule, well-to-do cultivators. Formerly they held many estates granted them as *jagir* or rent-free properties by the chiefs and landed proprietors, but these estates have now been subdivided into minute shares, and as a class they are no longer wealthy landlords. Living among a population consisting largely of aboriginal tribes, the Brahmans of Palamau, who probably first came into the district as the priests of the Raksel Rajputs, are an ignorant, though by no means unintelligent, set. There are few learned men among them, and though most act as *gurus* and *purohits*, few have any knowledge of the Sastras or can read or write. Physically, they are fine, well-made men and show some of the finest specimens of manhood to be found in the district. They are apt to be quarrelsome and to make troublesome tenants and bad landlords.

The Rajputs (30,000), though not very numerous, form Rajputs. the most influential caste in the district, as most of the wealthiest zamindars belong to it. They are most numerous in Husainabad. Amongst Chandrabansi Rajputs or as they style

themselves, Chhatra Chandrabansi Gours, the Namudag family of the Surwar sept are prominent and are usually appealed to in caste dissensions. The families of Ranka and Chainpur are also Surwars, and are descended from the family of Diwans or chief ministerial officers under the old Chero rulers. The heads of both these families did good service in the Mutiny and received from Government the title of Rai Bahadur, besides khilats or dresses of honour and rent-free lands. The Sonpura and Untari families are Surajbansi Rajputs. The Rajputs of Palamau have in many cases intermarried with the Cheros and Kharwars, and some undoubtedly have a large strain of aboriginal blood.

Koiris.

The Koiris (26,000) are the best cultivators in the district, and they cultivate the most fertile lands on the banks of the Son and the Koil in the jurisdictions of Bhaunathpur and Husainabad police-stations.

ABORIGINAL RACES.

The purely aboriginal tribes muster strong in the south of Palamau, which adjoins the aboriginal territory of Chota Nagpur proper and Sirguja, and their number gradually decreases towards the north. The majority have settled habits of life and live in small villages in the jungle or, when working as herdsmen and labourers, in separate hamlets (*tolas*) dependent on the larger villages inhabited by their Hindu masters. Some however still pursue the same nomadic life as their forefathers, living on wild herbs and roots and the produce of the chase, while others, little less nomadic in habit, grow a few hardy crops by a very rude system of agriculture; they use neither plough nor hoe, but merely drop different seeds in small holes made with a sharp pointed bamboo, reaping the crops as they come up in turn. The new coal-fields railway is likely to affect their manner of life materially.

Oraons.

The Oraons are the largest of these aboriginal races, numbering 48,000 (i.e., 34,000 Animists, 8,000 Hindus and 6,000 Christians), of whom the great majority are found in the southern thanas of Mahuadanr, Latehar, and Balumath on the borders of Ranchi district. The Oraons of Palamau may be divided into two distinct sections, viz., those who have been settled in the district for generations past, and those who have recently emigrated from Chota Nagpur, or reside in the south on the borders of the plateau. There is a marked distinction between the two, which tends to show that the Oraons degenerate after a long residence in the plains. The

first section, who reside in the valleys of the Koil and the Amanat, have now lost many of the characteristics which separate the true Oraon from the other jungle tribes. They have very little of the appearance of the Oraon whom one meets on the Ranchi plateau, and can with difficulty be distinguished from the Bhuiyas. They have given up most of the ancient customs of the tribe, and their dwellings are the same as those of the Bhuiyas and other castes.

The Oraons to the south, who are the most cheerful and light-hearted race in Palamau, have the physical appearance and retain to a large extent the religious observances of the pure Oraons of Chota Nagpur. They have dark and in some cases almost black complexions, and rather round faces with broad flat noses, projecting jaws, and low foreheads. They believe in a Supreme Being whom they call Dharmes, i.e., the beneficent one. He is regarded as their creator, but he has given the management of the world into the hands of tutelary divinities and of *bhuts* or devils, whom they have to propitiate. The Baiga or Pahan is in charge of these tutelary divinities, and officiates at the chief feasts on behalf of the whole community; while the Ojha or sorcerer is in charge of the *bhuts* or devils and has to find them out or drive them away. These divinities and devils are free to act as they please, and Dharmes does not interfere with them. But the Oraons invoke him in their greatest difficulties, especially when they have had recourse to the Pahan, the Ojha, and the Sokha or witch-finder, and found them powerless to help them. Then they return to Dharmes, and sacrifice a white cock with the invocation "Dharmes, you are our creator. Have mercy upon us." One curious spirit believed in by the Oraons is Murkuri or the thumping *bhut*. "Europeans to show their kindness and familiarity thump people on the back. If this is followed by fever or any kind of sickness, it will be described as the passing of Murkuri from the body of the European into the body of the native."*

The Cheros number 16,000, and over four-fifths are Cheros. found in the Daltonganj, Latehar and Patan *thanas*. They are subdivided into two sub-castes, Barabazar and Terabazar or Birbandhi. The former is the higher in rank and includes some of the descendants of the old ruling house of Palamau, who assume the title of Babuan; but the wealthier families

* The Rev. P. Dehon, S.J., *Religion and Customs of the Oraons*, Memoirs, A.S.B., Vol. I, 1906.

among them and the Terahazar Cheros have married into local Rajput families, and now call themselves Chauhan Rajputs. Once the lords of Palamau, the Cheros have never forgotten that they were a great people, and that their descent is an honourable one. Only the poorest among them will carry loads upon their heads. They are extravagant and fond of display, and will run irrecoverably into debt, so long as they have the smallest fraction of an estate left to give as security; and the result is that one by one the Cheros have all lost their estates.

The distinctive physical traits of the Cheros have been considerably softened by their alliances with pure Hindu families which their ancient power and large possessions enabled them to secure; but they appear still to exhibit an unmistakable Dravidian physiognomy. They vary in colour, but are usually of a light brown. They have as a rule high cheek bones, small eyes obliquely set, and eyebrows to correspond, low broad noses, and large mouths with protuberant lips. The religion of the Cheros is still in a state of transition, and they observe a sort of dual worship, which discloses unmistakable traces of their non-Aryan descent. For the worship of the Hindu gods they employ Kanaugia or Sakadwipi Brahmans, who are received on terms of equality by other members of the sacred order; and their spiritual guides (*gurus*) are either Brahmans or Gharbari Gosains. But they also reverence Animistic deities of the type known to other aboriginal tribes, to whom goats, fowls, sweetmeats, and wine are offered in the month of Aghan, so as to secure a good harvest. In these sacrifices Brahmans take no part, and they are conducted by a priest (Baiga) belonging to one of the aboriginal races.

Korwas.

The Korwas (7,000) are most numerous in the Ranka *thana* which lies on the borders of Sirguja. They are also found in Untari. They are described as follows by Mr. Forbes:—"In appearance they have a greater resemblance to the African Negro than any of the Munda tribes—round faces, very black skins, large mouths, very thick lips, and broad flat noses. They are short, thick-set men, with deep chests and broad shoulders, giving the idea of great power; at the same time, they are exceedingly active. Like all wild tribes, they are very poor cultivators, and grow none but the hardiest of crops. They love a forest life, and subsist upon wild herbs and roots and the produce of the chase. They

are very keen hunters, and spend half their time in the forest. A Korwa equipped for the chase is the very type of a savage. I have frequently come across them both singly and in parties of ten or twelve, armed with bows and arrows, with small bright axes in their waists, stealing quietly through the jungle, tracking down the deer." One of the most pleasing traits of the unspoilt Korwa is his marvellous truthfulness. One of them when on trial has been known to acknowledge stolidly 15 dacoities, three or four accompanied by murder, and deny indignantly a sixteenth, feeling the unmerited charge most keenly.

The Mundas number 3,000, of whom nearly all are found **Mundas**. in the Balumath thana, in the east of the district. They are an offshoot of the well-known Munda tribe of the Chota Nagpur plateau, and no special account of them is required.

A certain number of them in the Chhechhari valley are **Bhuhars**. known as Bhuhars, sometimes written as Bhuniyars, of whom the following account* is given by Father Dehon:—
 "The Bhuniyars were the first settlers in Barwe, Chhechhari and Sirguja, hence their name Bhuniyars, which means first settlers. Look at the map of Chota Nagpur, and it will be seen that Barwa, Chhechhari and Sirguja are separated from the country first occupied by the Mundas and Oraons by a chain of hills and *pats* running from Palamau to Palkot. Well, these Bhuniyars are only the descendants of a few Mundas who had crossed the hills and settled in Barwe and Chhechhari. This is proved by their similar traditions, the tombstones which are exactly the same as those of the Mundas, the similarity of their customs, and the names of some villages. Is it not very likely that, as the Oraons increased in number, they spread from the side of Lohardaga towards Palkot, whilst the Mundas retreated and left their brethren of Barwe and Chhechhari separated from the main body? By degrees also the Oraons emigrated from Kukra, crossed the mountain and came to settle in Chhechhari and Barwe, where the same process takes place. The Oraons take possession of the lowlands, whilst the Mundas retire to the small plateaus or high lands on the mountains. Colonel Dalton speaks of the Bhuniyars as being a different race and does not know how to classify them; but for one who has lived a long time among them there is no doubt at all. Some old

men of Barwe still remember that when they were young, their fathers were still in communication with the Mundas of Nagpur. The Bhuniyars of Sirguja being the farthest away from the Mundas are known only by that name. In Chhechhari is the transition stage, and they are called Bhuniyars or Mundas indifferently, whilst in Barwe, where they are nearest to the old stock, they will only accept the name of Munda. Now that their relations with the Mundas have ceased and they have lost their language, and have moreover abandoned the local traditions and gods of the Mundas, they are likely to form a different caste. Up till now they affirm that when they go to Nagpur and explain everything to their *bhais*, they are looked upon as being of the same caste; but they do not intermarry ”.

Parhaiyas.

The Parhaiyas (4,000) are the remnant of a tribe who, according to their own tradition and the traditions of other races in the district, once formed an important section of the population. Some of their songs are evidently old war songs of the tribe, and one referring to the invasion of Palamau has a burden of “ Fly, fly, Deo Sahi is coming, and we cannot resist him ”; this Deo Sahi was the father of Puran Mal, one of the leaders of the invading force. At the present day, many of the Parhaiyas are to be found residing in the plains, but they generally choose the more jungly villages and reside in a separate *tola* or hamlet. Some are good cultivators; but the majority live in the hill ranges and roam about from spur to spur, clearing small patches of ground on which they cultivate a few hardy crops, and bringing down to the plains honey, beeswax, lac, and other jungle produce, to barter for grain, salt, tobacco and cloth.

Nagesias.

The Nagesias (5,000) are found chiefly in the Mahuadanr *thana*. They are also called Kisan, a word meaning merely a tiller of the soil, and it has been conjectured that the tribe acquired that name from devoting themselves particularly to cultivation. They are a simple light-hearted race, who are denizens of the jungle or cultivate the skirts of the forests. They are sturdy, industrious cultivators, extremely averse from service and any form of menial labour, beyond ploughing the fields or cutting the crops for another peasant.

Birjias.

The Birjias are another Dravidian tribe and have only 1,000 representatives in the district, nearly all of them inhabitants of the Mahuadanr *thana*. A few have entered the

villages of the level valleys in the south and have become cultivators; but the bulk live in groups of two or three families on the spurs of the highest hills. By cutting the forest and burning the underwood, they clear a small space of ground on the top of the spur, where they have fixed their home for the year. On this land they cultivate a few scanty crops, which barely supply their wants. They use neither plough nor hoe, but plant their seed in small holes drilled with a pointed bamboo. They are a jungly tribe, roaming from hill to hill, and supplementing their crops by roots, herbs and other jungle products, which they barter for the grain, salt and tobacco of the lowlands.

In appearance the villages resemble those found in the plains of South Bihar and the Chota Nagpur plateau. The houses, which are almost invariably built of mud and roofed with red tiles or thatched with grass, are huddled together without any order or arrangement; and except in those villages which boast of a bazar, no two houses adjoin. There is however a marked difference between the houses of the aboriginal tribes and those belonging to persons of Aryan descent. In the latter case the homestead has a neat, comfortable appearance, and all its surroundings are in good order, while the former are slovenly and ill kept, the house being badly tiled or thatched, and the fences half broken down.

VILLAGES
AND
HOUSES

The following description of an ordinary Oraon village, given by Father Dehon in the article quoted above, will apply to most of the aboriginal villages;—"In some parts of the country the Oraons live in large villages consisting of a hundred and even two hundred houses. These are huddled together in the most perfect disorder: there are no thoroughfares, but only small little bits or winding and crooked paths—a most perfect labyrinth leading you to an infinite series of *cul de sacs*, each one more puzzling than the last. A European who finds himself in one of these mazes would find it impossible to get out of it without a guide. Nothing more monstrously filthy can be imagined than one of these villages in the rainy season. As it is impossible to dig any ditch in such a disorderly heap of houses, the rain collects and forms stagnant pools. The cattle, the pigs (every Oraon must keep five or six pigs) have very soon made a perfect quagmire, through which everyone has to wade knee deep. Imagine the sink of filth this must be and what a mixture of nose-

offending matter gets accumulated in four months. But the pigs and the children delight in it; and you can see them wallowing together side by side in perfect harmony.

“The houses are very small and low, most of them consisting of four mud walls, 15 feet long, 7 feet high, and 6 feet broad, surmounted by a thatched roof. In the middle of one of these walls there is a hole $4\frac{1}{2}$ feet high, which is the door; it is level with the ground, whilst on both sides there is a raised but hollow verandah, under which a whole family of pigs are always fighting and screaming. Inside the *logis* is divided into three parts: on one side the bullocks and the goats, separated from the middle room by three bamboos put horizontally and resting on one side in the wall and, on the other side, attached to a pole. Near the pole there is a small door of trellised bamboos. On the other side is the granary, and a place for pots and pans and all kinds of utensils, where they lie heaped up together. In the middle is a small room left for the people to sit in and prepare their food. There are generally three *chulhas* or hearths. No Government in the time of any epidemic ever invented a more perfect system of fumigation. The *chulhas* are lighted with half dried wood, the water is boiling, there is no chimney, no hole except the door, and the smoke and steam soon entirely fill the whole compartment. Natives themselves choke and cough, and bitter tears roll down their cheeks. As for a European, it would be death by suffocation if he had to remain half an hour in it. Added to all this is the stench of goats and the smell of cows and dirty men blending together and you will have an idea of the ordeal through which the nostrils have to pass. The entrance is closed by two big, revolving planks roughly hewn out of the trunk of a tree. They are a most heavy and unwieldy concern too, to the fingers that are caught between them, when with a screech and a bang they come together. On the upper part you have a similar plank to support the wall above the door. This is called the *kaparphora*, i.e., the forehead breaker. Never was a name so well applied. The natives themselves are not in danger of breaking their heads simply on account of their hardness, but for a European who would deem it polite to go in bare headed, his fate would be sealed. As for the missionary, who has often to go and visit his people in time of sickness, his dilapidated *topi* bears witness to the numerous encounters it has had with the famous *kaparphora*.”

In more civilized villages the residence belonging to each family consists generally of four houses, built so as to form a square with a quadrangle in the centre. This interior quadrangle is called the *angan* or yard; round it are the four houses above mentioned in which the different members of the family reside. Each house has a verandah and consists of two or more rooms according to the means and status of the occupants; one is generally set aside as a store house or granary. Sometimes, when the family is a large one and in comfortable circumstances, there are two court yards and the principal house facing the street is of more pretentious proportions. It has an upper storey and there is a broad verandah in front.

The above is a description of the dwellings of the better class of cultivators and of the petty landlords and farmers. The dwellings of the poorer classes are of a humbler description and are built either of mud or of wattle and daub. They consist sometimes of one and sometimes of two houses facing each other and walled in on each side with a bamboo fence to form a courtyard; they are generally surrounded by a high bamboo paling, on which various creepers are grown; this enclosure is called the *bari* or homstead land.

The dwellings of the chief landed proprietors generally consist of a huge pile built of mud with tiled roof. The plan is that common to most Indian country houses and consist of two or more quadrangles, of which one is set apart for the ladies of the establishment. Most of the older mansions are built upon the remains of an ancient *garh* or fort erected by the founder of the family, and are still surrounded by a moist or dry ditch, which is now used as a depository for all the rubbish and filth of the village. Some of the wealthier families have improved their residences by the addition of tall, brick houses, built at different periods, after the Indian style and without any uniformity; and this combination gives a unique and often picturesque appearance to the building, particularly when built among tall trees with fine foliage. In a few of them electric lights and fans have been installed. The house is generally situated in the village that bears the name of the estate, and from its elevated position is a conspicuous feature in the scene. Most of the houses round are occupied by the dependants of the family, and there is generally a bazar in which a weekly market is held.

Many curious customs and superstitions prevail among all classes and castes regarding the building of their houses. No Hindu, be he landlord or peasant, would dream of erecting a square house. It must be oblong, and the two longer sides must run north and south; the owners cannot however assign any reason for this. Before proceeding to build, the Brahman or Ojha must be consulted to ascertain the proper day on which to commence laying the foundations, and to state whether the site chosen is a lucky one or not. The Kharwars and jungle tribes follow to a certain extent the custom of the Kols or something like it, i.e., they place 21 grains of paddy on the spot selected over night and return in the morning to ascertain the result. If the grain has been disturbed or attacked by white ants during the night, the spot is abandoned as unlucky; if untouched, the building is commenced, and when it is completed, a house warming is given to friends and the family enter into possession.

Furniture.

The ordinary articles of domestic furniture comprise a string bed or two, made by the village carpenter, one or two iron frying pans, an iron ladle, and a knife used for cutting up vegetables. Water is generally kept and carried in the ordinary earthen vessels called *gharas*, and only the better class of cultivators own brass water vessels. Next to cattle, the possession of brass dishes is a token of wealth. These brass dishes are much valued both for their intrinsic worth and for the ease with which they are stowed away. Many families own vessels which have been handed down through successive generations; only those required for daily use are kept above ground, the remainder being buried and only produced on state occasions. What treasure the family possesses is often deposited in these vessels and buried with them. The system of burying treasure is common to all classes. The spot selected is known only to the heads of the family: sometimes it is in the floor of the house, sometimes in the walls of the different buildings; many families have a custom of hiding their wealth in some cave or under some rock on the nearest hill. The exact spot is known only to the parents, who rarely inform the children till they are at the point of death; and it frequently happens that a man who is known to be possessed of considerable wealth is carried off without having had the opportunity of communicating the spot to his heirs.

DRSS.

The Hindus of Palamau, including such Hinduized tribes as the Cheros and Kharwars, dress themselves like their

neighbours in Bihar. The apparel of a Hindu of average means consists of a *dhoti* or waist cloth wrapped round the loins and falling over the legs as far as the knees, a *chadar* or *dohar* of cotton, which serves as a covering for the upper part of the body, and a pair of countrymade shoes; a *jama* or coat and a *pagri* or turban are also worn on special occasions. The poorer people ordinarily wear a *kopin* or *bhagwan*, which is a narrow piece of country cloth about three feet long and a few inches broad. It is passed between the thighs and is fastened in front and behind to a string worn round the waist. The women of the superior Hindu castes wear *saris*; but those of the lower castes and the aboriginal tribes wear the *khaurhia*, which is a garment composed of two long strips of cloth sewn together lengthwise and fringed with red or occasionally black and blue threads.

The food of the people consists for the most part of rice, Food. maize, *marua*, wheat and barley. In this district rice is the staple food of the well-to-do rather than of the poor. The majority live on maize and the various *bhadaï* and *rabi* crops, such as *marua* and other millets, like *gondli*, *sawan*, *china*, and *kodo*; cereals and pulses like wheat, barley, gram and occasionally peas, lintels and *khesari*. For the most part they eat these in the form of *sattu*, i.e., a flour prepared from wheat or one of the many kinds of coarse grains and pulses, the meal being accompanied by vegetables, salt, and a few simple condiments.

The proportion in which the various grains enter into the dietary of the people differs very greatly. In the north, where the population is mainly Hindu and the alluvial plains formed by the Son, Koil, and Amanat are under paddy or *rabi* cultivation, rice is largely consumed besides *marua*, wheat, barley, and gram. The hilly tracts which form the remainder of the district, are mainly inhabited by semi-Hinduized aboriginal tribes which cultivate little rice and even less *rabi*. Here *bhadaï* crops, such as maize, *marua*, and to a smaller extent *sawan* and *kodo*, are extensively grown and consumed, while rice, wheat, and barley are of minor importance.

In addition to these food grains, the inhabitants in the wilder parts resort largely to the use of edible forest products to supplement their food supply. The most important of these products is the *corolla* or the flower of the *mahua* tree, which is met with in all parts of the district, growing in equal profusion in cultivated and forest tracts. The flower is in season

in March and April, when it is gathered in large quantities as it falls ripe from the tree by the women and children; and after being sundried is usually prepared for food by boiling. The seeds of the *sal* tree, the fruit of the banyan and *pipal*, wild yams, the *bhelwa* or fruit of the *Semecarpus Anacardium*, the *piar* (*Buchanania latifolia*), the *bair* (*Zizyphus Jujuba*), and a large variety of other jungle fruits and roots are also eaten, cooked or raw, and form a very important addition to the ordinary food supply of the poorer classes.

CHAPTER IV.

PUBLIC HEALTH.

UNDER the system introduced in 1892 all births and deaths that take place are noted by the village *chaukidars* in their *hath chhittas* which are handed over by them to the police at the time of *chaukidari* parades: the police send monthly returns to the Civil Surgeon by whom statistics are prepared for the whole district. The *chaukidar* has no medical knowledge and is apt to class all diseases in regard to which he feels any doubt under the head of "fever". Moreover, at times of widespread epidemics such as occurred in 1918, the *chaukidar* himself is apt to fall ill and to fail to keep himself informed of what is happening in his beat or to go to the police-station to give his report. Although however no one would claim a very high degree of accuracy for the vital statistics, they do give a fairly reliable idea of how the district is faring from year to year.

VITAL
STATISTICS.

The birth-rate in Palamau is unusually high: in some *thanas* it has in certain years approximated to 70 per mille. In 1904 the district birth-rate rose to its highest point of 56.81 per mille. In 1911 it touched 53.45 and it again reached the 50 mark on three occasions during the 12 years for which figures are given in Table III at the end of this volume. It reached its lowest point of 34.9 per mille in 1921.

The death-rate reached its lowest point of recent years in 1913 when it was only 24.54 per mille. For several years it hardly rose above 30 per mille till it reached the appalling figure of 71.8 in 1918, the year of the influenza epidemic—in which there is moreover every reason to suppose that many deaths went unreported.

No part of the province suffered so severely from this epidemic as Palamau and the neighbouring districts of Shahabad, Gaya, and Hazaribagh. No definite statistics of the incidence of the disease are available, as influenza was simply

The
influenza
epidemic of
1918.

included under the head of " fever ", but the death rate from " fever " in 1918, when the epidemic was worst, was 59.4 per cent. or more than twice as high as that of the preceding year. The annual sanitary report of the district for 1918 shows that, as in other districts, the disease was imported first into the towns and thence spread through the villages where it found its readiest victims. Its presence was first

Number of deaths from " fever " in the district during certain months of 1918 and 1919.

1918.			
June	...	...	1,272
July	...	...	1,917
August	...	...	1,505
September	...	...	2,887
October	...	...	7,778
November	...	...	12,778
December	...	...	6,043
1919.			
January	...	...	2,420
February	...	...	1,584

noticed at the end of July but the first wave subsided during August. In September the second and by far the worse outbreak started: the number of deaths from fever as shown in the margin mounted rapidly during September and October and reached its maximum of nearly 13,000 in November. By the end of January 1919 it had practically subsided. A rough calculation puts the number of deaths directly

attributable to influenza during these months at 25,000. The disease was usually accompanied by pneumonia and it was generally the latter that proved fatal. The number of deaths was greatest in November when the first touch of the cold weather would predispose towards pneumonia. The towns, where there are greater facilities for remaining in bed and being attended to by other people, were less affected than the purely rural areas. It is an established fact that in India as a whole the disease was most fatal to persons in the prime of life, who would be the most difficult to keep in bed. The north of the district escaped comparatively lightly. The death rate for the year was highest in Bhandaria (99.1 per mille), Mahuadanr (87.1 per mille), and Ranka (83.9 per mille). It was lowest in Husainabad (61.7 per mille), and Daltonganj town (42.4 per mille). An epidemic on this scale which affected every village inevitably outran the resources of the District Board. Three extra doctors were employed. The village *chaukidars* distributed quinine, eucalyptus oil, and turpentine by way of preventive. Leaflets of instructions

prepared by the Sanitary Commissioner and the Inspector-General of Civil Hospitals were circulated. Influenza tablets, quinine pills, and liniments were also distributed as widely as possible through the police, the vaccination staff, the veterinary assistants and a number of the local gentry. But the careful nursing and dieting that the disease required could not be provided, and no epidemic has left a deeper mark on the population of the district. Since 1918 influenza has been very prevalent in the district, the outbreaks occurring at the beginning of the hot and cold seasons.

Of all the diseases met with in the district fever PRINCIPAL DISEASES. Fever. causes the greatest mortality. Table III shows that during the last twelve years the number of deaths from this cause has never fallen below 12,500. Even allowing for the element of error due to the want of medical knowledge on the part of the reporting agency, which causes the *chaukidar* to regard fever as a general cause of death, there is no doubt that fever is really responsible for the greater number of the deaths every year, and that in many cases these are caused by malarial affections. This is particularly the case in the tract south-west of the Daltonganj-Ranchi road, where the people are scourged with malaria. The following account of the different types of fever met with has been prepared from a note supplied by the Civil Surgeon, Rai Bahadur Tripura Charan Guha.

Daltonganj, the headquarters station of the district, is fairly healthy except during the rainy season when cases of malarial fever (and diseases of the digestive system) are very prevalent. In some rural areas specially in thanas Kerh, Garu, Mahuadand and Bhaunathpur malarial fever is more or less prevalent throughout the year and very severe during the rains. New-comers in those areas suffer more than the permanent residents owing to the immunity the latter obtain from their long residence. The quotidian, quartan, and tertian types of malarial fever are prevalent in the district and are the result of being infected with different kinds of malarial parasites introduced into the system by mosquito bites. The onset of fever in these cases is preceded by a fit of ague followed by a rise of temperature which at times reaches even 106° and remission takes place with profuse perspiration. These types of malaria are readily cured by quinine. Malignant subtertian and quotidian malaria are also frequently met with in this district and are also cured by a

judicious use of quinine and arsenic. Double types of these fevers are rare, but are sometimes met with in Daltonganj town. Remittent fevers are occasionally observed in different forms; these are mostly malarial, but are at times difficult to differentiate from *kala-azar* and enteric fever. Typho-malarial fever, as described by former writers, appears to be nothing but typhoid fever which is prevalent in this district, most of the cases occurring in Daltonganj town from June to September. *Kala-azar* has also lately made its appearance in the district and is frequently noticed in the *thanas* of Kerh, Garu, Mahuadanr and Bhaunathpur. The characteristic of this fever is that it is accompanied by extreme anæmia with enlargement of the spleen and liver and that it is not amenable to treatment by quinine. One hundred and sixty cases of *kala-azar* were treated at the Daltonganj hospital in the year 1924 with injections of antimony. This fever used to be mistaken in former years for malarial fever with enlargement of the spleen and liver, but has now been found to be due to a parasite entirely different from malarial parasites (Leishman Donovan). Malarial remittent fever is not fundamentally different from intermittent fever, being merely due to the continuity of the attacks without the usual period of intermission. Such a fever lasts for a short time and is now and then attended with hyperpyrexia, delirium and coma.

Two types of non-malarial remittent fever are found. In one variety the temperature is usually low, rising from 99° to 101°. This variety persists for a definite period, sometimes seven days, sometimes twelve, and is not relieved by quinine. In the second variety the temperature is high from the beginning, rising from 101° to 105°, the liver is invariably congested, and the spleen considerably enlarged. There is occasionally delirium and coma, and fever subsides on the 14th, or 18th, or more usually on the 21st day. Quinine treatment does no good. The anæmia and enlargement of the spleen persist for sometime after the remission. These types of fever are at times mistaken for typhoid when they are accompanied by diarrhoea, delirium and coma.

Simple continued fever or ephemeral fever due to indigestion and to exposure to sun and cold is at times met with, and cases of sunstroke with hyperpyrexia are not uncommon. Cases of 'nasha' fever also occur. This is a febrile disturbance lasting for three or four days, with congestion of the mucous of one nostril or of both. Injection of cold water in

the nostril and packing the inflamed nostril are the modes of treatment adopted.

Cases of dengue and seven-days' fever have also been observed, but these are mostly imported and have been found in persons who carried the infection from some places outside the district.

Rheumatic fevers due to acute rheumatism, with joint troubles and heart complications and hyperpyrexia, are not uncommonly met with. Diphtheria is now quite a common disease in Daltonganj town, especially among children. Chicken-pox and measles are very common at the latter part of the cold weather and at the beginning of the hot season.

In 1894 there occurred a particularly violent outbreak of Cholera. cholera which caused over 6,500 deaths. Thereafter outbreaks occurred with some regularity every two or three years. In more recent times there were outbreaks of some severity in the four consecutive years from 1918 to 1921, after five years of comparative freedom. "The conditions favouring the spread of the disease", remarks a former Civil Surgeon, "are only too patent—filthy, sodden villages, and a water supply polluted in every possible way, the latter evil being specially intensified by deficiency of rain for a long time before. The weekly bazars held in large villages, bringing a large concourse of people together, contribute to its spread". The usual source of the drinking supply in the hot weather in the villages to the south is the *dhari* or common village spring. It is a square hole, usually about two feet square, sunk in one of the lower terraces of the rice fields. This hole is kept from falling in by alternate layers of planks. Often there is only one such source for the whole village, and it is used by both cattle and men, while the rice fields themselves are contaminated by the cattle that graze there. It would be difficult to find a more polluted source of water-supply. The question of providing a proper supply of drinking water has been engaging the attention of the District Board. The Board now maintains over 100 *pucka* wells which it has constructed. It has recently doubled its allotments for this purpose and it hopes to double the number of its wells also in the next few years.

Bowel complaints, dysentery, and diarrhoea are common, largely owing to the impurity of the water-supply: in the hot weather drinking water is only too often procured in the

Bowel
complaints.

manner just described, and in the rains the flooded streams bring down surface washings charged with various impurities. Another fertile source of bowel complaints is the indigestible food eaten by the people, especially the jungle fruits and roots to which they have recourse when other food becomes scarce.

Plague.

Plague first broke out in the district in 1901; when there were 168 deaths. Up to the present this disease has not obtained a firm hold on the district, the total number of fatal cases in the last 10 years being only just over 100. Such cases as occur occur on the Gaya border near Hariharganj, the infection being imported.

Other diseases.

Among other common diseases may be mentioned spleen, ear and eye diseases, rheumatic affections, venereal diseases, ulcers, diseases of the respiratory system and skin diseases. For some reason the people of Palamau are specially afflicted with blindness, 138 males and 158 females out of every 100,000 being returned as blind at the last census as compared with the provincial average of 82 for each sex.

Smallpox and vaccination.

The death rate from smallpox is usually small. A bad outbreak occurred in 1920 and in the year before and after 1920 more deaths than usual occurred. Vaccination is compulsory in Daltonganj municipality, in the urban unions at Garhwa and Husainabad, and in the three villages of Chainpur, Pathra, and Satbarwa. The vaccination staff consists of an inspector, 2 sub-inspectors, 25 licensed and 3 paid vaccinators. The average number of successful operations performed by this staff during the last five years is rather over 17,500. This number is not high, but apart from their vaccination work the staff perform useful miscellaneous duties at the time of epidemics.

MEDICAL INSTITUTIONS.

The Sadr hospital at Daltonganj, which is vested in the municipality, contains 44 beds for males, and in the female ward recently opened at the cost of the Raja of Chainpur, there are another 10 beds. This hospital was established in 1867 and for 30 years was the only medical institution in the district. Next oldest is the hospital at Ranka, which was founded in the last century by the then Raja of Ranka and is maintained by his successor. The hospitals at Chainpur and Untari are similarly maintained by the proprietors of those estates. The District Board, apart from subscribing largely to the Sadr hospital, maintains dispensaries at Garhwa, Haidarnagar, Latehar, Balumath, Chhattarpur, Mahuadanr, Panki, Manatu, Hariharganj, Chandwa, Lesliganj, and

Netarhat. There are also police and railway hospitals, and hospitals at the colliery at Rajhara and at the cement works at Japla. The hospitals most largely attended are those at Daltonganj, Chainpur, and Garhwa. Accommodation for in-patients is provided on any scale only at Daltonganj; but there are also a few beds at Ranka, Garhwa, Haidarnagar, Latehar, and Balumath, and also in the police hospital at Daltonganj and the factory hospital at Japla. The medical facilities available in the district will be expanded considerably in the next few years, as the District Board has a scheme for opening a dispensary in every police-station. The Board also employs a touring doctor, whose services are specially in demand at the time of epidemics.

CHAPTER V.

FORESTS.*

GENERAL
REMARKS.

WITH the exception of the Singhbhum forests, those of Palamau have suffered less from the destructive hand of man than those of any other district of Chota Nagpur. This can only be attributed to their inaccessibility and vast extent. Though the forests have been immune from exploitation by timber companies, the indigenous population has succeeded to a remarkable degree in removing almost all the jungle in the more level and fertile country in the north of the district. The mountainous nature of the southern and western *tappas* and the consequent difficulty of obtaining cultivable land has limited the population and confined the clearing of extensive areas of forest to the valleys. Nevertheless, the wasteful practice of shifting cultivation (*daha*) which was universal and is still prevalent in the private forests has reduced large areas of primeval forest to the scrub jungle now so frequently seen in all parts of Palamau. Reservation came none too soon, and, although it was too late to save the large trees, it preserved many of the forests from further deterioration and ultimate ruin. The evil and far-reaching effects of denudation are fully realized nowadays. Whether or not forests have a great effect on the rainfall of a country is a disputed point, but there is no doubt as to their efficacy in preventing erosion and lessening the danger from floods. Erosion is making its appearance in the district, notably at Mahuadanr, where the land is becoming much cut up by ravines. This is believed to be of comparatively recent origin and can be traced to the clearing of whole hillsides for shifting cultivation. The benefit to the cultivator from these operations is extremely small and the damage done incalculable. The wasteful practice of constructing fences of sal saplings, so common a sight in Ranchi and Hazaribagh,

* This chapter, with the exception of the last paragraph, was kindly supplied by Mr. H. F. Mooney who was at the time Divisional Forest Officer of Palamau.

is fortunately rare in Palamau owing to the large number of bamboos that are available and which are preferred for the purpose.

According to the recent Settlement Report, the total area of jungle in Palamau is 3,200 square miles of which 2,000 square miles are unfit for cultivation. The forests therefore cover 65.3 per cent. of the total area of the district. The Government forests extend over 260 square miles, viz., 192 square miles of reserved forest and 68 square miles of protected forest; of the latter some 20 square miles are under the control of the Deputy Commissioner, while several of the other blocks are being converted into reserved forest. These Government forests constitute 5.3 per cent. of the total area of the district. Besides these there are extensive private forests and also large areas of khalsa jungle* in the Khas Mahal villages. Over these little or no control is exercised and, though ample for the present requirements of the tenants, they are gradually being destroyed owing to improvident methods of exploitation. Some of the private forests contain limited supplies of large timber but generally speaking they have been much damaged by right-holders and are badly in need of protection. Some steps in this direction have been taken by a few landlords and by Government during its period of management of the Deogan estate, but there is a general reluctance to introduce efficient forest conservancy owing, it is said, to the discontent it would be likely to stir up among the villagers.

The reserved forests lie to the south of Daltonganj in the Latehar and Mahuadanr thanas at elevations varying from 1,000 to 3,500 feet. The country is generally very hilly but level and undulating stretches are to be found here and there. These level patches are usually the sites of deserted villages from which the tenants were evicted at the time of constituting the reserves. The forests are of the dry, deciduous type of which the most important species is the *sal* (*Shorea robusta*), which covers approximately 53 per cent. of the area. The remainder of the growing stock consists of mixed forest and bamboos. *Sal* usually occurs in depressions, along *nalas*, and on the lower slopes of hills. It is also noticeable that it affects the northerly in preference to the southerly aspects.

RESERVED
FORESTS.

* The khalsa jungle is the jungle in the villages of the Khas Mahal or Government Estate which is included neither in the tenants' holdings nor in the protected or reserved areas.

In the south of the district it ascends to 3,500 feet at Netarhat where the prevailing geological formation is laterite. On the whole big trees are scarce, the bulk of the crop being still in the pole stage and mostly of coppice origin. Nevertheless, in the more favourable localities large trees are by no means uncommon and attain a girth of six to seven feet. Such trees are generally found in the vicinity of deserted villages where the soil is deep and well drained. Patches of *sal* of excellent growth and density are to be seen in these localities having come up on previously "*jhumed*" land. In association with *sal* the following species are usually found :—

piar (*Buchanania latifolia*), *asan* (*Terminalia tomentosa*), *aunra* (*Phyllanthus Emblica*), *dhaunta* (*Anogeissus latifolia*), *bia* (*Pterocarpus Marsupium*) and a few others, including *khair* (*Acacia catechu*).

The mixed forest consists mainly of the following species :—

khair, *asan*, *karam* (*Adina cordifolia*), *guri* (*Stephegyne parviflora*), *sidha* (*Lagerstroemia parviflora*), *kaji* (*Bridelia retusa*), *kusum* (*Scheichera trijuga*), satinwood (*Chloroxylon Swietenia*), *mahua* (*Bassia latifolia*), *dhaunta*, *gamhar* (*Gmelina arborea*), *bia*, *chilbil* (*Holoptelia integrifolia*), *sandan* (*Ougenia dalbergioides*), *simal* (*Bombax malabaricum*), *rohan* (*Soymida febrifuga*), *panra* (*Stereospermum suaveolens*), *bel* (*Aegle marmelos*), *Bauhinia* spp. and *kakor* (*Zizyphus xylophora*) on the lower slopes, while the hill type includes such trees as *salai* (*Boswellia serrata*), *ginjan* (*Odina wodier*), *kenkar* (*Garuga pinnata*), *galgal* (*Cochlospermum gossypium*), *tend* (*Diospyros tomentosa*), *bhurkul* (*Hymenodictyon excelsum*), *keonji* (*Sterculia urens*), *paper* (*Gardenia latifolia*), and other species of minor importance. *Toon* (*Cedrela toona*) and blackwood (*Dalbergia latifolia*) are occasionally found in the ravines in the south towards Adhe village.

Generally these trees of the mixed forest type are of poor growth and often unsound. Satinwood reaches a good size in

places and ebony trees of three or four feet girth are occasionally seen. *Salai*, which is very common and of little use as timber, reaches large dimensions and is a prominent feature of the Palamau forests. Bamboos (*Dendrocalamus strictus*) are found throughout almost all the mixed forests but not in association with *sal*.

Name.			Area in acres.	
Baresanr	...	...	58,069	into the blocks shown in
Saidope	...	...	27,934	the margin. The Bare-
Ramandag	...	...	16,595	sand block constitutes the
Kumandih	...	...	10,449	southern range; Saidope,
Betla	...	...	6,847	Ramandag, Betla and
Piri	...	...	1,523	Kechki the northern; and
Ureya	...	...	698	Kumandih, Ureya and
Kechki...	...	...	440	Piri the Latehar range.
Total	...	...	122,575	In addition several blocks

of protected forest are included in each range.

The largest block in the northern range is Saidope which consists mainly of a ridge of hills some 14 miles long and one to four miles broad together with a level area in the north near the village of Kerh. Here *sal* is found throughout the level area and along the lower slopes of the ridges. It extends up the hills in the cool and shady ravines but soon gives way to the mixed forest type as the slopes get steeper and the soil poorer. On the summit it disappears entirely, giving place to bamboos and trees of a more xerophytic character. *Khair* is extremely common in the level part of the block and is found here and there on the lower southern slopes of the ridge towards Lat and Bere villages. The Ramandag block, which adjoins Saidope and is bounded on the south by the Koil river, is also hilly but the growing stock is better and some large trees of *sal*, *asan*, and *bia* are found. The forest along the north bank of the Koil is mainly *sal* and trees of five and six feet girth are not uncommon. Many have however been removed in recent times for the construction of the Kechki and Garu bridges. There is a plentiful supply of bamboos in this block but, owing to its distance from the market and the difficulty in obtaining a sufficient supply of labour in the vicinity, there has been little or no demand up to the present. The recent rise in the value of bamboos is not however without its effect and contractors are now turning their eyes in this direction.

Betla contains large quantities of bamboos, *khair* and other miscellaneous species. The block is hilly and *sal* does not occur except in a couple of small patches. Big satinwood trees are common and several were extracted recently with a view to exporting them to the home market where a high price is paid for this timber. Bamboos have been worked in this block for many years past for export to Dehri-on-Son. There is a keen demand and the contractors make a good profit. A working scheme for this forest was drawn up in 1908 but no fellings were carried out till 1919. Since then the demand has increased and good prices are now being obtained, as much as Rs. 46 an acre having been realized in 1923. The timber extracted from this block is all sent to Daltonganj and to the villages lying to the east where no forests of any size or value exist. All surplus timber is converted into charcoal and sold in Daltonganj. Kechki block, situated at the junction of the Koil and Auranga rivers ten miles from Daltonganj, contains only small poles of miscellaneous species, a few bamboos and numerous *khair* trees. Owing to its proximity to Daltonganj there has for many years past been a good demand from this forest. Most of the material available is converted into firewood and charcoal. Certain of the protected forests in this range should be of great value in a few years owing to their proximity to the Hutar coalfield. Steps are at present being taken to reserve as many of these as possible, especially those in which the tenants do not exercise their rights to any great extent.

Southern
range.

The reserved forests of the southern range constitute a compact block of 91 square miles. It is here that the best *sal* is found, especially in the low-lying areas along the south bank of the Koil in the vicinity of the deserted villages of Halhad and Bagichumpa. This *sal* area extends for some six miles from east to west and for some 12 to 15 miles towards the south in the direction of the Netarhat plateau, interspersed here and there with patches of mixed forest in the neighbourhood of Maromanr. The best *sal* exists in the vicinity of the deserted villages of Kari and Henar. Bamboos flourish in large quantities especially on the hills above Garu and Maromanr at Hulluk in the east of the block and between Adhe and Baresanr in the west. No scheme has yet been prepared for working the timber in this forest and no extraction of any kind is carried on owing to its inaccessibility and the lack of communications. Many large *kusum* trees are found in the

area and the departmental cultivation of lac on these is at present under consideration.

The Kumandih, Ureya and Piri blocks, which constitute the reserved portion of the Latehar range, are at present difficult of access and the only produce utilized to any extent is bamboos. These are available in abundance in Ureya and in lesser quantities in Kumandih. *Sal* is common in the latter block but trees of over four feet girth are scarce. The proximity of these forests to Latehar and the Auranga coal-field should render them valuable in the future when this part of the district is opened up by the railway.

The protected forests cover an area of 68 square miles of which 48 square miles are under the Forest Department and 20 square miles under the Deputy Commissioner. They are distributed throughout the Daltonganj, Latehar and Mahuadanr thanas. About 16 square miles are in the Lesliganj thana under the control of the Deputy Commissioner, consisting of eleven blocks varying in size from less than one square mile to a little more than three square miles.

The protected forests consist of the surplus of waste land left over in each Government village after allotting to the villagers a sufficient area for the extension of cultivation. The principle was to allow for the latter purpose an area equal to that already under cultivation and to make the remainder protected forest if it exceeded half a square mile in extent. This arbitrary arrangement has led to unexpected and sometimes anomalous results. Thus, in a village of 3,000 acres, if 125 were cultivated and another 125 allowed for extension, the surplus area (2,750 acres) was constituted protected forest; but if 1,400 acres were under cultivation, the surplus would be 200 acres or less than half a square mile. In the first village where the extension of cultivation would *prima facie* be most needed, it would be restricted by the vast area given up to forest; in the latter village, where presumably forest protection would be required, it would be impossible. Another aspect of the case is that in the former instance, where an area of 2,750 acres was available for protection, at least 1,800 or 2,000 acres could have been reserved, still leaving a large proportion from which the tenants could obtain their requirements. It is now becoming evident that larger areas of forests could and should have been reserved

originally. Any such action is becoming yearly more difficult and the opposition it would provoke hinders any steps being taken in this direction, desirable though they be.

Since the protected forests were first constituted the object kept in view has been, not so much to produce revenue but to conserve the forests so as to ensure a continuous supply of produce to the tenants of the Government estate. Some blocks are able to supply more timber than the villagers drawing on them require and the surplus produce is occasionally sold to outsiders at the same rates as are charged in the reserved forests; but other blocks are far less productive, especially in Lesliganj thana, and are showing signs of deterioration. The growing stock is very much the same as in the reserved forests but in some respects they have an advantage over the latter. The reserved forest boundaries go over ridges or skirt the face of a hill, just taking in perhaps a narrow fringe of *sal* in the low lands. The protected forests occupy more of the space at the base of the hills on level or undulating ground where the soil is better and more suitable to the growth of *sal* which ceases almost altogether when the hills are reached.

The history of these forests dates back to 1894 when the Government issued a notification by which all waste lands that were the property of the Government with the exception of the lands used by the villagers for cultivation and habitation were declared protected forests. Subsequently in 1898 these forests were divided into blocks, subject to such occasional revision as experience might show to be required and the undemarcated portions, described as the 'khalsa jungles', were released without restriction for the free use of the raiyats, for grazing, reclamation of waste land and the supply of jungle produce. In 1902 the management of the forests was transferred from the Forest Department to the Deputy Commissioner, as the stringent rules in force and difficulties about grazing caused much discontent amongst the villagers. The boundaries of the blocks were twice revised, in 1904 and 1905, the tenants being given land suitable for cultivation in exchange for areas better adapted to tree growth. In 1920 the forests were once more transferred to the Forest Department as the denudation of the jungles in other parts of Chota Nagpur was causing apprehension and it was considered advisable to introduce systematic working with a view to

preserving these forests in perpetuity for the benefit of the tenants or at any rate to delaying their destruction. In 1920-21 the Deputy Commissioner expressed the opinion that these forests should remain under his control and, after a certain amount of controversy, it was decided that the blocks in the Lesliganj thana, comprising the poorer forests and those furthest removed from the reserves and therefore more difficult for the Forest Officer to supervise, should be placed under the Deputy Commissioner, while the remaining blocks were to be retained by the Forest Department. This transfer was finally concluded on the 1st April, 1923. It was now decided, in view of the opening up of the district and the probable increase of population in the neighbourhood of the coalfields, that the protected forests should be reserved wherever it was compatible with the rights of the tenants. Hence the reservation of several blocks was undertaken and as far as possible existing rights were extinguished in those areas where the raiyats were not wont to exercise them. The work of reservation was not yet completed at the time of writing.

Forest conservancy in Palamau dates back to 1879 when 179 square miles of forest were reserved, the remaining forests being constituted reserves in 1884. Before 1904 they formed a separate division; they were then amalgamated with the forests of the Hazaribagh Division but were again made a separate charge in 1920. The staff maintained consists of a Divisional Forest Officer, a ranger, three deputy rangers, three foresters and 41 forest guards. Since the forests have been under the Forest Department the system of management has been restricted almost entirely to protective measures as the forests were in the main immature. In his Administration Report for 1875-76 Dr. Schlich, the then Conservator of Forests, said, "It will be observed that what the reserves want is rest, so that they may recover from past maltreatment. For a number of years to come only what is urgently required will be cut, and in the meantime a small amount of revenue will be derived from the sale of bamboos, lac, the flowers of *Bassia latifolia*, from grazing, where it cannot be excluded from the reserves, and other minor produce". Fellings have been restricted to the exploitation of unsound timber, *khair* trees and bamboos. Recently however it was decided to commence systematic working of timber. While conserving and improving the forests this will yield sufficient revenue to

ADMINISTRATION.

support the division which has been run at a loss since its formation except for the few years during which it was combined with the Hazaribagh Division, when the mica revenue from the latter more than balanced the expenditure.

Protection.

Fire protection has been in force since 1881-82, and efforts have been made to protect the whole area. Failures have averaged $7\frac{1}{2}$ square miles or 4 per cent. of the total area in each year. Fires are chiefly caused by the practice of burning the grass and leaves below *mahua* trees in order to facilitate the collection of flowers, and by the burning of wood for manuring the fields outside the forest, and allowing such fires to spread. The clearing of grass round *mahua* trees is probably the commonest source of fires as it is carried out in March and April when the jungle is driest. Large areas are also burnt chiefly in the private forests, in order to provide a crop of grass with the first fall of rain and the fires, driven by the north-west wind which prevails during the hot months, frequently spread into the reserves. There have occasionally been cases of incendiarism but this is of rare occurrence and has only affected small areas. On the whole, fire protection has been quite successful and has enabled the forests to reach a stage when fires do comparatively little damage. Such fires as have occurred in recent times do not appear to have done much harm but a considerable portion of the older stock seems to have been seriously damaged by fires which took place prior to reservation and which probably swept through the forests every year preventing any possibility of regeneration. The tapping of *sal* trees for resin also appears to have been practised on a large scale formerly and was very likely one of the chief causes of the scarcity of sound trees over sapling size when reservation took place.

Frost is a factor to be contended with in Palamau. Every year young growth is damaged, while frosts of great intensity occur at intervals of five or six years causing extensive areas of *sal* jungle to appear as if they had been scorched by fire. Only careful selection of the systems of felling in the affected areas is likely to yield any protection against this evil.

Forest offences are few; the inhabitants of the forests surrounding the reserves have indeed little inducement to steal produce as they have access to large areas of protected, *khalsa* and private forests.

Minor produce forms one of the main sources of revenue MINOR PRODUCE. from the reserved forests; the chief items being bamboos, lac and the sale of *khair* trees for *kath* manufacture.

Palamau ranks second among the lac producing districts of India. In March and April it is a remarkable sight to see the whole countryside one blaze of colour when the *palas* (*Butea frondosa*) is in flower, this being the tree on which lac is chiefly cultivated. A census of lac bearing trees in the district which was taken in 1921 gave a total of 1,779,869 trees. About 72,000 maunds of lac are exported from Palamau annually by rail in the form of stick lac and about 12,000 maunds in the form of shellac. The income derived from this source has made the people very independent and, though it has lessened the danger resulting from the failure of crops, it has led to a considerable increase in the excise revenue. Lac cultivation entails no hard work and as a result an adequate supply of labour for other purposes is difficult to obtain except at greatly increased wages. A small area has been acquired by the Forest Department at Kundri near Lesliganj containing some 28,000 *palas* trees. This so-called "Lac Farm" has proved a great success financially and further extension of lac cultivation by Government agency is contemplated.

The difficulty in obtaining building materials in the Bamboos. districts of Shahabad, Gaya, Saran and Patna has resulted in a keen demand for bamboos which are exported in large numbers from Palamau. It is only the difficulty of transport from the more remote forests that prevents the numbers being infinitely greater than they are at present. The majority are removed from the Betla and Saidope reserves to Kechki by cart where they are auctioned to outside dealers who arrange for their transport to Dehri and Patna by river. The profits realized by the contractors who cart and extract the bamboos amount to as much as 50 or 60 per cent. Recently a demand has sprung up in the vicinity of Latehar which is supplied from Ureya and Kumandih blocks. A scheme for working bamboos throughout the reserves has been prepared and it has been estimated that the annual supply available is 25 to 30 lakhs.

The manufacture of *kath* is carried on in many parts of the district both in the Government and private forests. The product is an astringent substance extracted from the heart wood of the *khair* tree by boiling the wood chips and collecting

the residue after evaporating the liquid. This work is carried out by Mallahs who work in the forest from October to March while water is available for their operations. When the *kath* has been solidified it is cut into small blocks and sold in the Daltonganj bazar. It is eaten with *pan*.

In addition to the above, the following minor produce is supplied from the jungles :—

Sabai grass has hitherto only been extracted for the local manufacture of string. However it is hoped to arrange for its proper working and export for paper making. It is nowhere very common but large quantities are available throughout the district.

Mahua flowers and fruits are collected by the villagers. The flowers are eaten or used in the manufacture of country spirit and the fruit yields an oil used for cooking.

Honey, thatching grass, fodder grass, and *khajur* (*Phoenix sylvestris*) leaves for basket making, are also collected by the local people. Certain timbers (*Bauhinia* spp.) and the bark of certain trees are sought after for making rope; this product is known locally as *chop*.

COMMUNICA- TIONS.

As has been mentioned before, the inaccessibility of the Palamau forests has been the chief factor in their preservation. Most of the better jungles are situated at too great a distance from the railway to make the extraction of timber profitable. In fact the only forest product exported to any large extent is bamboos which find their way by river to Dehri-on-Son and Patna bazar. Thus the main line of export from the district is the Koil river. There are several roads and tracts belonging to the District Board and the Forest Department which tap the forest areas, but with the exception of the Daltonganj-Latehar road they are unbridged and only passable between December and June. The advent of the railway, running through the district from east to west will have the effect of opening up the forests and rendering their working more profitable. It will also probably help in accelerating the destruction of the private and khalsa jungles, especially if the landlords do not take some steps to place their forests under systematic management.

The difficulty in obtaining adequate labour in recent times can be traced directly to the extension of lac cultivation following the rise in price of shellac during the war and the high prices prevailing from 1919 to 1922. In order to cope with this problem and in order to maintain a continuous supply of labour in the forests for departmental operations, the formation of forest villages within the boundaries of the reserved forest was decided upon. The land given to this purpose consists of the sites of deserted villages which existed before the forests were reserved. They are devoid of tree growth and as a result little labour is required to render them fit for cultivation. The first village of this sort was formed at Bijaipur near Rud in 1920. Two more were started in 1923 at Pandra and Ramandag respectively. The villagers are allowed to cultivate the land free for the first three or four years after which they pay a nominal rent. In exchange for this concession they must supply the Forest Department with labour for a certain number of days in the year, for which they are paid at a rate slightly less than the prevailing rate of daily wage. This work is usually so arranged that the tenants are not called upon while they are engaged in cultivation. That this scheme is fully appreciated can be realized from the number of applications received for land in the forest, mostly from tenants of villages outside the Khas Mahal.

In the southern part of the district the population is so small that it is difficult to conceive how past generations succeeded in destroying the forests to the extent they did. The reserves have been under protection for 45 years, during which time a deficit of Rs. 6½ lakhs has been incurred. This does not include the revenue or expenditure of Hazaribagh Division between the years 1904 and 1920, but it takes into account the expenditure on the protected forests prior to 1902 and since 1920. A large demand and more extensive exploitation has led to a decided improvement in recent years. The revenue rose from approximately Rs. 8,000 in 1920-21 to Rs. 50,000 in 1923-24. This is distinctly encouraging and with improved communications the increase should continue.

In consequence of protection the reserves now contain a promising crop of young *sal*; the bulk of the trees being from 2½ to 4 feet in girth and some 45 to 60 years old. It is noticeable that in many parts the trees become overmature and unsound before they attain a large size. These, together

with many trees of exploitable girth, should be removed before they become useless. An accurate working plan has now become a necessity and no time should be lost in its preparation. Fellings on a more extensive scale will probably commence within a few years and it should not be long before the lee-way of the past 45 years is made up.

The development of the forests should follow rapidly on the opening out of the district by the railway and with the influx of population in the neighbourhood of the coalfields. The collieries themselves will require a supply of pit props which can be obtained in large quantities from the reserves. Material for constructional work will be in demand and can be supplied from the better class forests in the south of the division. The railway will facilitate the export of produce not consumed locally and will attract timber merchants from outside the district. In addition, as the private forests become worked out, as will probably occur unless the attitude of the landlords undergoes a radical change, the economic value of the Government forests will increase in proportion. Above all, over-exploitation must be carefully avoided. It will be many years before the Palamau forests reach full maturity and be in a position to give their maximum yield. Strict forest conservancy is necessary in the meanwhile and care must be taken that the inherent principles of forestry are not vitiated by the attraction of high prices and a desire to inflate the revenue unduly to the ultimate detriment of the forest.

ARBORICULTURE.

An account of the forests of Palamau would be incomplete without some reference being made to the arboricultural work on the Netarhat plateau. At one time the possibility of forming a hill station in this attractive spot was entertained and in order to beautify the plateau plantations of various species including many exotics were formed. The indigenous species have done well, notably *toon* and *gamhar*, but the same cannot be said of the others. *Chir* pine (*Pinus excelsa*), silver-oak (*Grevillia robusta*) and some eucalyptus spp. are practically the only exotics that have met with any success so far.

PRIVATE FORESTS.

A few words may be added with regard to the rights exercised by villagers in the jungle of villages owned by proprietors other than Government. In the case of the more jungly villages an entry was made in the record-of-rights to the effect that the raiyats have the right to reclaim waste

lands for permanent cultivation without the landlord's permission, subject to the provision that the land must be suitable for cultivation and that the raiyat must not waste valuable timber or clear more ground than he can himself conveniently cultivate with the means at his disposal. In villages where a considerable part of the jungle had already been cleared and where the area available for cultivation was therefore restricted, the entry was made that the landlord's permission is required. The villagers have also the right to take wood for burning or for domestic or agricultural purposes, to graze their cattle in the jungle, and to take jungle fruits and produce, excluding *mahua* which is usually subject to special arrangements. These rights are in some cases exercised subject to the payment of small fees. Certain valuable trees may not be cut for any purpose. Large trees may only be cut for making a plough or a roof-tree for a house. No tree may be cut for sale and jungle must not be wasted. The villagers of some villages which contain no jungle are permitted to exercise jungle rights in other villages which do contain jungle.

CHAPTER VI.

AGRICULTURE.

CULTIVATED AREA.

THE total area of the district is 4,916 square miles, but of this 262 square miles are included in the reserved and protected forests. The total cropped area is 1,365 square miles; the culturable but uncultivated area is 940 square miles, including 159 square miles of old fallow and 768 square miles of culturable jungle; and the area (other than reserved and protected forests) not available for cultivation is 2,332 square miles.

For agricultural purposes the district may be regarded as consisting broadly of two interlacing zones. The first consists of the valleys of the Amanat, Koil, and Son, and contains stretches of fertile alluvial soil covered with crops of rice and to a less extent of sugar-cane, wheat, barley, and gram. The second comprises the hilly tracts, where the land is generally composed of a thin, loose, gravelly soil. Most of the latter area is covered with jungle, and cultivation is mainly carried on in the valleys lying among the hills; even there it is very precarious owing to the irregularity of the rainfall. In this part of the district there is comparatively little rice cultivation; the *rabi* or winter crops are equally unimportant; and the population is mainly dependent for its sustenance on *bhadai* crops, such as maize and *marua*, which are raised during the rains.

DISTRIBUTION OF RAINFALL.

The outturn of all the crops of the year depends on the distribution of the rainfall, statistics regarding which have been given at the end of Chapter I. For the *bhadai* and late rice harvests the distribution most favourable to agriculture, the husbandman's ideal year, is when premonitory showers, falling in May or early June, facilitate that spade husbandry which, to secure a really good crop, must precede ploughing

operations. The rain at the end of June and in July should be heavy: then should come an interval of comparatively fine weather, in which weeding operations may be successfully prosecuted. The September, i.e., the *hathiya* rains must be heavy, shading off into fine weather with October showers. On the sufficiency of the September rains, more than those of any other month, depends the character of the winter rice crop. Finally, periodic showers from December to February inclusive are essential to a good *rabi* harvest.*

Owing to the rainfall frequently being deficient or even more frequently unfavourably distributed, artificial methods of irrigation are most desirable. There are, it is true, a large number of rivers and streams in the district, but in most of them the supply of water diminishes rapidly or fails entirely soon after the end of the rains. Except in the most favourably situated low land, the rice crop depends on the extent to which water can be introduced into or retained in the fields by artificial means. In the case of the uplands artificial irrigation is so difficult as to be practically impossible except in so far as *rabi* crops are grown in the beds of the *ahars* when the water has been let out or wells can be sunk in the rich lands along the banks of the great rivers. The cultivators have recourse to various means to retain the moisture in their fields. Much of the cultivated area is broken and undulating and unsuited to large schemes of irrigation. The result is that by far the most common method of irrigation is the *ahar* or *bandh*, an embankment thrown across the natural slope of the country to catch the surface drainage: its catchment area is sometimes greatly increased by damming up streams so that the water that flows down them in the rains is diverted into the *ahar* for use when required in the terraced lands below. The water is distributed from the *ahars* by *bhaos*, which are either cuttings in the embankments or outlets bored through them and plugged with straw and mud till the time comes for them to be opened. The area irrigated from wells is either the *bari* land close to the villages or the rich lands cultivated usually by Koiris on the banks of the Son or Koil, in which vegetables and sugarcane are grown. The water is raised from these wells by means of the usual lever (*latha*) and bucket

IRRIGATION.

* A. P. MacDonnell, *Foodgrain Supply of Bihar and Bengal*, Calcutta, 1876.

(*kunri*). The other sources of irrigation are mostly *pains*, i.e., channels by which water is distributed from the rivers to the fields.

The construction of a successful *ahar*, and still more of a successful *pain*, is not so easy as might be supposed. This fact is proved by many broken embankments and channels no longer serviceable. The damage is caused by the accumulation of silt and the difficulty of efficiently repairing the outlets of the *ahars*.

Kararbar
channel.

The largest single irrigation scheme in the district is that known as the Kararbar channel, which was begun in 1905, and was intended to supply water from the Kararbar river, a tributary of the Son, to 96 villages in Japla *pargana*. The numerous landlords concerned were induced to sign a joint bond under the Land Improvement Loans Act in favour of the Deputy Commissioner and to entrust the work to the District Engineer. Unfortunately the scheme did not fulfil expectations: the channel rapidly silted up, legal difficulties arose in connexion with the bond executed, and the landlords lost all interest in it as the result of the widespread commutation of produce rents in the area irrigated at the time of settlement. At the settlement it was recorded that only 1880 acres were being irrigated from this source. With the assistance of a substantial grant from Government the channel has recently been re-excavated and new silt-proof headworks are being provided. It is hoped in future to supply water directly or indirectly through *ahars* to about 100 villages. This scheme is primarily an insurance against the failure of the *hathiya* rains in September-October, on which depends the success of the rice crop and the sowing of the *rabi*. The so-called Harhgarhwa scheme, consisting of a dam across the river of that name near Lesliganj with tributary channel, which was constructed about the same time as the Kararbar channel, maintains a precarious existence. The story of the Sadabah channel near Patan police-station is a repetition of the story of the Kararbar channel on a small scale, but it is hoped that it may be possible to resuscitate it.

The total irrigated area of the district is rather over 90,000 acres, of which 81,000 acres are irrigated from *ahars*, 7,500 from wells, and 1,900 from other sources, i.e., chiefly *pains* or water-courses. Eight-ninths of the irrigated area is rice land, but less than half of the rice land in the district is irrigated.

The most fertile soil is *kewal*, a species of hard, stiff, clay, extremely retentive of moisture, which is principally devoted to the cultivation of rice, wheat and barley. *Garia kewal* is a whitish soil containing a large proportion of nodular lime (*kankar*), and *doma kewal* is a hard black clay, which, like *garia*, is a good rice-producing soil when irrigated, but does not grow such good *rabi* crops. *Balsunder* is a soil with a considerable admixture of sand, which yields good crops of rice when irrigated, and *dorasa* is a loamy soil also suitable for rice cultivation but inferior to *kewal*. *Pawar* is a sandy, friable soil which is regarded as a poor rice land but grows gram, *marua*, and barley. Other names for inferior soils are *akraut*, a sandy, gravelly, soil, mixed with clay; *gangti*, a calcareous soil containing *kankar*; *pathli* or *ankri* a reddish soil full of gravel and pebbles, found on the slopes and at the bottom of ravines; and *lalmati*, the red ferruginous soil found in the south of the district near the Chota Nagpur plateau and in gneissic hillocks and ridges in the north-west.

The cultivated land in the district was classified in the record-of-rights, as in the other districts of Chota Nagpur, as riceland and up-land, each subdivided into three classes according to merit.

CLASSIFICATION
OF LANDS.

I.—Riceland (*dhankhet*).

First class riceland (*gahera*, *bahiar*, or *ghoghra*) bears a heavy crop of slow ripening rice, reaped in Aghan, and remains moist for the greater part of the year. Land of this class is invariably irrigated, usually by artificial means, and is ordinarily situated in the bed of a *nala* or immediately below an embankment.

Second class riceland (*singha*, *dohar*, *chaur*, *kandi*, or *hugri*) bears a crop that is ripe by the end of Kartik or the beginning of Aghan. It is less favourably situated than the first class land, but derives some of its moisture from irrigation. Such land is usually found in long, winding *nalas* in the jungle or in narrow strips between the first and third class fields in large stretches of terraced land.

Third class riceland (*bad*, *tarkha*, *sathiar*, *tarkhet*, or *badhian*) includes that large part of the riceland of the

district to which no water is brought by irrigation, but in which the moisture is retained by terracing. The crops grown in this land mature quickly and are reaped in Asin or Kartik.

II.—Upland (*tanr*).

First class upland (*bari* or *gharbari*) is the fenced land round the dwelling houses, constantly manured and bearing two crops a year. It includes also such plots as are commonly used for the cultivation of sugar-cane, and the *dub* lands in the beds of reservoirs which are used after the water has been let out, and some of the rich lands on the banks of the Son and Koil.

Second class upland (*bhita*, *maruabari*, *bahirbari*, or *chira*) includes the unfenced lands, usually next the first class upland, that are manured sometimes and like the first class upland, bear two crops a year.

Third class upland (*tanr*) is situated away from the *basti*, and bears sometimes one crop a year and sometimes one crop every few years. The extent to which this land is cultivated depends on the demand for land in the neighbourhood.

Areas under
different
crops.

The proportion of riceland to upland is 1 to 4, and the area of each of the classes of land and their proportions to the total cultivated area of the district (871,514 acres) is as follows:—

				Acres.	Percentage of total cropped area
Riceland—					
1st class	...	...	...	6,408	·7
2nd class	...	...	...	33,679	4·2
3rd class	...	...	...	135,067	15·4
Upland—					
1st class	...	...	...	50,485	5·7
2nd class	...	...	...	172,706	19·8
3rd class	...	...	...	472,220	54·1

The areas under the different crops according to their seasons and the proportion of each to the total cultivated area is as follows :—

				Area in acres.	Percentage of total cropped area.
Riceland—					
Autumn (<i>bhadai</i>)	...	...		127,235	14.5
Winter (<i>aghani</i>)	...	...		44,868	5.1
Spring (<i>rabi</i>)	...	...		45,030	5.1
Upland—					
Autumn (<i>bhadai</i>)	...	...		343,979	39.4
Winter (<i>aghani</i>)	...	...		122,263	14.2
Spring (<i>rabi</i>)	...	...		329,800	37.8

The most valuable crop is the *aghani* which includes the best rice and sugarcane. The *bhadai* includes the early rice, *marua*, *kodo*, *maize*, millets, and other less important grains. The *rabi* crop includes gram, wheat, barley, oats, and pulses. The area in which the autumn (*bhadai*) rice crop is raised is approximately identical with the third class ricelands. This crop is clearly of the greatest importance in Palamau, much more so than the winter rice crop; and unfortunately a high proportion of third class rice land means liability to famine, for it means that most of the land is unprotected against a failure of the rains. On the other hand the proportion of upland to riceland is much greater in Palamau than in the adjoining districts of Chota Nagpur, as the following figures show :—

				Riceland (in square miles.)	Upland (in square miles.)
Palamau	...	...	...	208	1,083
Hazaribagh	...	...	...	743	1,293
Ranchi	...	...	...	1,206	2,409

In Hazaribagh and Ranchi the area of riceland is approximately half the area of upland; in Palamau it is only one-fifth. The Palamau cultivators therefore do not stake their all on a single harvest; their risks are well distributed. But the crops that mean most to them are precarious ones, and

half the cultivated land in the district is of the poorest class of upland which is cultivated only once in three years. Moreover, the proportion of the precarious *bhadai* crop is higher in the poorer parts of the district: in Mahuadanr the area under *bhadai* is nearly ten times as great as that under *rabi*; in Husainabad it is only two-thirds of it. These facts which were definitely established at the settlement give substance to the view of the Indian Irrigation Commission that Palamau was the driest and probably the poorest district then included in the province of Bengal.

PRINCIPAL
CROPS.
Rice.

Rice is the most important crop in the district with a total area of 176,000 acres. The greater part of this crop is *bhadai* (127,000 acres), as already stated, but the most valuable part is *aghani* (45,000 acres). The latter is for the most part transplanted (*ropa dhan*) and is sown after the beginning of the rains in June or July on lands selected for seed nurseries, which have previously been ploughed three or four times. After four or six weeks, when the young plants are about a foot high, they are generally transplanted, each plant being pulled out of the land, which is soft with standing water, and planted again in rows in flooded fields in which the soil has been puddled. The rice is then left to mature with the aid of water till towards the end of September. The water is then drained off and the fields are allowed to dry for 15 days, and at the end of that time they are again flooded. It is this practice which makes the rainfall or failing that irrigation essential to a successful harvest. These late rains (the *hathiya*) are the most important in the year, as not only are they required to bring the winter crops to maturity but also to provide moisture for the sowing of the *rabi* crops. Should no rain fall at this period, or if water cannot be procured from artificial sources, the plants will wither and become fit only for fodder; but if seasonable showers fall or the crops obtain a sufficient supply from *ahars*, the rice comes to maturity in November or December and is then reaped.

A certain proportion of the rice is sown broadcast in May or June in low-lying lands and is not transplanted; this system of cultivation is known as *rasbuna* or *dhuria bawag*.

The *bhadai* rice (127,000 acres) is also sown broadcast in June or July and is not transplanted; it is regarded as a 60 days' crop and is generally harvested in September or October. One variety known as *tema* is sown broadcast in

February or March and reaped in May or June; it is grown to a small extent in the beds of streams to the south. Other varieties are known as *karhar* and *gora dhan*, the latter of which is grown by cultivators in the south on upland fields not surrounded by the small ridges called *als* which are constructed to retain the water in low-lying fields.

Gram or *bhunt* (*Cicer arietinum*) is the most important Gram. of the *rabi* crops, being grown on a gross area of 111,000 acres. It is as a rule grown by itself, but occasionally it forms part of a mixed crop with wheat. It is sown in October or November and harvested at the end of the cold weather in March or April.

After gram the largest area is occupied by maize or Maize. Indian corn (*makai*), which is grown on a gross area of 69,000 acres. It is by far the most important of the *bhadai* crops, being grown by almost every *raiyat*. It is the chief crop in the hilly parts, where the cultivation of winter rice and *rabi* crops cannot be profitably carried on. It furnishes in fact one of the staple foods of the district. It is sown in June or July and harvested in September or October. The cobs begin to appear within a month after sowing, and thenceforward the fields have to be carefully watched to prevent injury by birds and beasts, as well as loss by theft.

Barley, with a gross area of 44,000 acres, ranks next to Barley. gram amongst the *rabi* crops. It is grown in all parts of Palamau except in the hilly tracts inhabited by tribes of aboriginal descent who show little aptitude for the cultivation of food crops other than their favourite millets. It is essentially the food of the poorer classes who eat the grain boiled or fried, make it into bread, or consume it in the form of *sattu*. The last preparation is the one most appreciated, the grain being first parched and then ground into a coarse flour; and it usually forms the midday meal of the labouring classes, seasoned with chillies and a little salt. Barley is as a rule grown on *bhita* land and occasionally on *chatar*, i.e., the higher rice terraces, after some earlier varieties of rice have been cropped.

Wheat, which occupies a gross area of 15,000 acres, is Wheat. grown more or less in all parts of Palamau except in the hilly tracts where the soil is too loose and gravelly to admit of its cultivation; it is grown most extensively in the valleys of the

Koil and Amanat and in the narrow strip of flat country fringing the district on the north. It thrives in *kewal* or strong clayey soils and also does well in loamy soils and alluvial deposits, but the best outturn is obtained when it is grown in the beds of *ahars*.

Marua.

Marua (*Eleusine coracana*), with a gross area of 22,000 acres, ranks next in importance to maize among the *bhadai* crops. It is grown in all parts of the district and is one of the main food crops in the hilly tracts. It is nearly always transplanted, and being an exhausting crop is not grown on the same land for two successive years. It is also a late crop, not being ready for the sickle till November.

Other cereals.

Amongst the other cereals the most important is *gondli* (*Panicum miliare*), which is grown on a gross area of 89,000 acres. Millet or *bajra* (*Pennisetum typhoidum*) is grown on 2,000 acres. Other cereals commonly cultivated are *jowar* (*Sorghum vulgare*), *sawan* (*Panicum frumentaceum*), *kodo* (*Paspalum scrobiculatum*), and *china* (*Panicum miliaceum*). Amongst the pulses the most common is *urid* (*Phaseolus Roxburghii*) grown on 17,000 acres, *barai* (*Phaseolus mungo*), *kurthi* (*Dolichus biflorus*), *rahar* (*Cajanus indicus*), *khesari* (*Lathyrus sativus*), and *masuri* (*Ervum lens*). *Rahar* is cultivated both in the hills and in the plains, the aboriginal cultivators of the former exchanging the produce for rice and salt. The species raised by them is larger than that of the plains, and is grown on what is called the *beora* system, the land being cleared by burning the jungle and the seeds planted in holes drilled about a cubit apart. *Khesari*, a species of vetch, is sown immediately after the rains among the standing paddy and yields a coarse, cheap pulse, which is eaten in the form of *sattu* or boiled and eaten as *dal*; but it has the reputation of being an unhealthy food. *Masuri* is a lentil which is eaten in the same way as *khesari*.

Oilseeds.

Amongst the oilseeds the most commonly grown is *til* (*Sesamum indicum*), which occupies a gross area of 111,000 acres of the worst land. *Sarguja* (*Guizotia Abyssinica*) and mustard are both grown on 24,000 and linseed on 20,000 acres.

Sugarcane.

Sugarcane is grown in the valleys in the north and centre of Palamau and is most common in the country round Hariharganj in the north-east corner of the district: it is

not cultivated in the south. The juice of the canes is extracted by means of the iron roller mills designed at Bihia in Shahabad district and known as Bihia mills.

Cotton used to be a favourite crop with the semi-abori- Cotton.
ginal tribes, and the principal centres of cultivation used to be the hilly, jungly tracts in which such tribes live. At present it is hardly cultivated at all, but, as the method of cultivation is primitive and interesting, it may be explained. There are two methods of raising cotton (*kapas*) called respectively *kachhwa* and *daha*. The first system hardly needs description: the land selected is ploughed three or four times and is then left till the next shower falls, when the seed is sown broadcast. This method is generally unpopular owing to the amount of weeding required: the cultivator either cannot afford hired labour or is too indolent to do it himself; and cotton sown in this way is generally choked by weeds. The second method, called *daha*, is by far the most common, and also the most wasteful. In this case the land selected is generally forest land which is cleared by cutting down the trees, the stumps alone being left standing. The whole field is then covered with a thick layer of brushwood which is set on fire during the hot weather. This firing has a two-fold object: it burns up the roots of all grass and weeds lying near the surface, thus effecting a certain saving in weeding, and the alkali contained in the ashes is an excellent manure. It is not often however that this latter advantage is secured, for unless a shower happens to fall immediately after the land has been fired, the strong west winds carry away the ashes. As soon as the first showers have fallen, the cultivator ploughs up the land and sows the seed broadcast; when this has been done, he proceeds to fence the field round to keep off deer, which are very fond of the crop; and this is the only expense he incurs till the time comes to gather the crop.

The *daha* system being the one most commonly practised, it is not surprising that the growth of cotton has decreased rapidly with the extension of cultivation, as the jungle is gradually burnt down or gives place to the plough, and also owing to the reservation and protection of forests in which such a method is strictly prohibited. In 1863 the Bihar Cotton Road was specially constructed to export cotton from Palamau and Sirguja during the American Civil War. In

1872 the area under cotton was 9,600 acres; in the five years ending in 1905-06 it averaged only 4,320 acres; in 1906-07 it had fallen to 1,500 acres; and at the settlement the area recorded was only 1,200 acres.

VEGETABLES
AND FRUITS.

The vegetables of Palamau include potatoes, tomatoes, radishes, sweet potatoes, beans, mushrooms, cucumber, the *baigun* or *brinjal* (*Solanum melongena*), various gourds, and the vegetable known as ladies' finger or *ramtarai*. Among cultivated fruits mangoes take a prominent place; they are grown all over the district and numerous large groves are found towards the north. Melons are cultivated extensively along the banks of streams; and other fruits are the plantain, orange, custard apple, mulberry, guava, pomegranate and pomelo or shaddock. The fruits of the jack and *bel* trees are used for food, but of all the fruit-bearing trees the *mahua* (*Bassia latifolia*) is of the greatest economic importance.

Mahua.

The *mahua* is found in great abundance all over the district, and though it is only a supplementary article of food when cereals are cheap, it is the main resource of the aboriginal tribes in times of scarcity. The part of the *mahua* which is eaten is the corolla of the flowers, a fleshy blossom of a pale yellow colour; when fresh it has a disagreeable smell but a peculiarly luscious taste, and is excellent for quenching thirst; when dried it is very like a raisin. The blossoms spring from the ends of the smaller branches of the tree, in bunches of from twenty to thirty, and, as they approach ripeness, swell with juice and fall to the ground. Much depends on the weather while the flowers are developing; the crop requires sun, and cloudy weather and thunderstorms are most destructive.

As soon as the buds appear, the ground is carefully cleared, all grass and weeds growing beneath the trees being removed, usually by burning. The first fall of the blossoms is the signal for the women and children to commence work. Those whose homes are near the trees go out to work at dawn, returning two or three times during the day with what they have gathered; but where the trees are at a distance, the whole family encamps close by and remains there till the entire crop has been gathered. After being gathered it is spread out to dry upon the ground, which has previously been smeared with a coating of cow-dung and mud.

The blossoms are rarely eaten while fresh, being considered unwholesome, but are kept in the sun till they are dried, when they turn a light brown and resemble raisins. There are several methods of preparing the blossom for food, the most common being to boil it; but as this seems to take all flavour out of it, the seeds of the *sal*, or some acid leaves or herbs, are cooked with it, in order to render it palatable. Another plan is to fry it in *ghi* or butter, but this is too expensive a luxury to be indulged in by most people. Another important use to which the *mahua* blossoms are applied is in the distillation of spirit.

The fruit of the *mahua* commences to form immediately after the fall of the blossoms, and ripens in June. The fruit is never broken from the tree, nor is the tree shaken to induce it to fall; should this be done, the tree, it is said, will not bear any fruit the following year; consequently, it is allowed to drop of itself. The fruit, when ripe, is about the size of a peach, and has three separate skins, with a white nut or kernel inside. The whole of the fruit is utilized in the following ways. The two outer skins are either eaten raw or cooked as a vegetable; the inner skin is dried and ground up into flour (*sattu*.) Of the kernel an oil is made, which is largely used for cooking purposes and for adulterating *ghi*.

Next in importance as an article of food is the *bair* or Other jungle plum (*Zizyphus jujuba*); it grows upon a small thorny fruits. thicket or bush, and is found all over the district. When half ripe, it has the pleasant acidity of an apple, and is eaten in large quantities; when fully ripe, it is gathered, dried and stored, and is eaten either boiled or in an uncooked state. The thorny branches furnish material for a cheap and impervious hedge. The *piar* is the small black fruit of the tree of that name, and resembles a sloe in appearance. It grows plentifully in the more jungly parts, and is gathered and dried in the same way as the *bair*. The two small stones inside the fruit, which are known as *chiraunji*, are made into a delicate sweetmeat.

The forests contain numerous other edible fruits and roots and for at least eight months in the year furnish the people of the jungly villages with a supply of food, which, though perhaps not very substantial or digestible, is still

sufficiently nutritious to prevent starvation ; and in this respect they are better off in times of distress caused by a failure of the crops than the inhabitants of the more highly cultivated parts. Some of the roots are highly nutritious and form a favourite article of food with the wilder tribes. The latter, indeed, are the only people who know where to find them, as they lie at a depth of several feet below the surface, with nothing above ground—to an ordinary observer at least—to indicate their presence, so that one might almost imagine that instinct alone enables these hill men to tell where the root is lying.

EXTENSION
OF CULTIVA-
TION.

It used to be supposed that a considerable extension of cultivation was occurring in the district. It was thought that the statistics available for the Government Estate showed that there had been a large increase in that area, and that by parity of reasoning a similar increase might be inferred in other parts of the district. Mr. Bridge has now shown in the Settlement Report of the district that Mr. Sunder was not justified when he stated in 1898 that there had been an increase of 32 per cent. in the area of riceland and of 501 per cent. in the area of upland cultivated in the Government Estate since Mr. Forbes' settlement of 1870. He has also shown that additions to the cultivated area in the Government Estate recorded since Mr. Sunder's own settlement are really cases of exchange of upland. In fact there are no reliable statistics of earlier date with which to compare those compiled at the last settlement, so as to justify a confident statement that there has or has not been an appreciable extension of cultivation in recent years. It can only be said that the probability is that there has been some slight extension with the gradually increasing pressure of population : that there has been any considerable increase seems improbable.

BEORA
CULTIVATION.

In the hilly tracts agriculture may still be said to be in its infancy. Here the tribes practise the primitive methods of cultivation handed down to them from time immemorial. They use neither plough nor hoe, and are content to plough their seeds in holes drilled with a pointed bamboo. This system, known as *beora*, is becoming more and more restricted, the denudation of the jungle having been stopped altogether in the Government Estate and the reserved and protected forests. The more settled and civilized tribes are

also incapable of continued exertions, and possess neither the patience nor the skill necessary to raise the more valuable crops which require frequent attention. They live in the midst of the jungle, and grow chiefly crops that require little manual labour, such as maize, millets and, formerly, cotton.

In the north of the district the methods of cultivation differ in no material respects from those followed in south Bihar, and here are found a large number of those adroit and patient cultivators, the Koiris, who produce crops such as sugarcane and vegetables, which require unremitting attention and a large expenditure of time, money, and labour. Owing to the presence of these and other intelligent cultivators, the Bihia mill for crushing sugarcane has come into favour and has entirely supplanted the old wooden mill. Efforts have been made from time to time to improve the quality of crops by selection of seed and also to introduce new varieties, but not much has been done in this direction.

The provisions of the Land Improvement and Agricultural Loans Act have been utilized in Palamau to an extent surpassed in few districts in the province. The former Act, which provides for advances being given by Government to any person legally entitled to make improvements or to any other person with his consent, is intended to provide chiefly for the excavation of tanks, reclamation of land, and construction of embankments for purposes of irrigation; the latter Act is chiefly directed to supplying the wants of *rai-yats* in the matter of seed and cattle. Loans were first granted in the district during the famine of 1897 to the extent of Rs. 66,000. Since then the distribution of agricultural loans on a large scale has usually indicated scarcity: over Rs. 1 lakh were distributed in this shape in 1903-04, and again in 1908-09. Rs. 1½ lakhs were distributed in 1919-20 and Rs. 1 lakh again in 1920-21. Such loans are also taken with some freedom for the purchase of cattle. The distribution of land improvement loans does not vary inversely with the rainfall in the same manner. Large sums were granted during the first 10 years of the century, but much of this was given to tenants of the Government Estate to save them from the toils of the *mahajans*. After that the amounts distributed fell off, but they increased again in 1918-19. Such loans are most commonly given nowadays to repair or extend and improve existing *bandhs*.

CATTLE.

The agricultural stock list prepared at the settlement shows that there were then in the district :—

Cows	145,000	Buffalo cows . . .	53,000
Bulls	4,000	„ bulls . . .	2,000
Young stock . . .	110,000	„ young stock	31,000
Bullocks	183,000	„ bullocks . . .	5,000

It shows also 105,000 goats, 30,000 sheep, and 6,000 ponies and horses. The number of ploughs was 87,700, and of carts 682 only, a striking commentary on the primitive communications of the district. The number of available plough cattle is sufficient to provide a yoke for each plough and little more. The area of cultivated land per plough is 10 acres as compared with 8 acres in Ranchi and $6\frac{1}{2}$ in Hazaribagh, but most of the cultivated area in Palaman is of inferior class and some of it is not ploughed at all. Bullocks are frequently hired for the season on the *buka* system, the rate of hire being from 5 to 7 maunds of grain for the 8 or 9 months of the cultivating season. The district is comparatively well stocked with she-buffaloes, most of which are kept for the sale of milk and *ghi* and are the property of professional graziers. Buffaloes are rarely used for ploughing except by Oraons. The quality of the cattle is generally poor.

Cattle are generally grazed free of charge by the villagers in the waste lands and the unoccupied fields of the village, but professional graziers and the makers of *bathans* usually pay fees. There is a vast area available for grazing in the jungles in the south and south-west of the district, and herds of cattle are frequently sent into them during the rains to graze on the grass which is then plentiful.

The most prevalent cattle diseases are rinder-pest and foot-and-mouth disease, outbreaks of which occur every year. The District Board maintains three veterinary assistants, the third having been very recently appointed, and the Government Estate one. There is a veterinary dispensary at Daltonganj which treats between 700 and 800 out-patients a year, and another at Garhwa. The headquarters of the Government Estate veterinary assistant are at Latehar. The District Board also maintains two bulls for breeding purposes.

CHAPTER VII.

NATURAL CALAMITIES.

PALAMAU has been characterized by the Indian Irrigation Commission as "the driest and probably the poorest district of the Province". Within recent years it has suffered from scarcity on no less than five occasions, in 1869, in 1874, in 1897, in 1900, and in 1919, on each occasion as the direct outcome of drought. The severity of these visitations varied considerably in different parts of the district, according to the extent to which the food-supply of the people is derived from the *aghani*, *bhadai* and *rabi* crops. The north and centre of the district are chiefly under rice and *rabi* crops, such as wheat, barley and gram, while *bhadai* crops are grown only to a small extent. In the hilly tracts, there is comparatively little rice cultivation, and much less of *rabi*; while *bhadai* crops, such as maize, *marua*, *sawan* and *kodo*, are extensively cultivated. Generally speaking, the loss of the rice harvest tells severely on the population inhabiting the valleys, while the aboriginal inhabitants of the hills are not affected by its failure, provided there is a bumper *bhadai* harvest; on the other hand, they obtain little relief from a plentiful harvest of rice and *rabi*, if it is preceded by the loss of the *bhadai* crops.

These aboriginals however have a resource, unknown to cultivators in many other districts, in the edible jungle products which enable them to eke out their existence under conditions which would result in starvation elsewhere. They are consequently safeguarded from very severe famine; but these scanty meals of forest produce, when continuously taken without the usual accompaniment of rice or other digestible food, produce effects very injurious to general health. They sustain life, it is true, but the unwholesomeness of the diet taken by itself is apparent from the blotches and sores caused by the excessive use of the *bhelwa* and other fruits, and in the end results in such a reduction of the system as to render

the people an easy prey to any prevailing sickness. This was very clearly demonstrated in the famine of 1897, when it was found that the poorer classes inhabiting those parts of the district which produce most of the edible jungle products became in the long run more emaciated and debilitated than in other parts of the district. The following is an account of the five famines which have visited Palamau during recent years.

Famine of
1869.

The famine of 1869 was due to the failure both of the *bhadai* and winter rice crops. The *bhadai* crops of 1868 failed almost entirely in the north-east and north-west, and nearly half was lost in the centre of the district. The winter rice fared even worse owing to the absence of rainfall from September onwards, and was a total failure in most parts. This was followed by a partial failure of the *rabi* crops, many of which could not be sown owing to the dryness of the soil. The parts most affected were the north-east and north-west and to a smaller extent the centre of the district; in the south and south-east the outturn of the crops was much better, while an abundant harvest was reaped in the Chhechhari valley. Relief works were started in October 1868, and the number of persons employed rose to 6,357 at the end of June, after which it gradually dwindled till the 15th October 1869, when the works were finally closed.

Famine of
1874.

The year 1873-74 opened with a comparatively short food-supply owing to deficient harvests in the preceding year, and a very poor *mahua* crop in the spring of 1873. The *bhadai* crops of maize and *marua* failed almost completely in 1873, and the *aghani* paddy was equally a failure. The outturn of the latter was estimated at 2 to 4 annas in *parganas* Japla, and Belaunja in the north and in Deogan and Untari in the extreme north-east and north-west of *pargana* Palamau, while it was 5 to 7 annas in the central, southern and south-western tracts. The pressure of the famine was most severely felt in the *parganas* mentioned and in Pundag to the east, and here distress lasted from January to June 1874. The distribution of charitable relief was commenced in the latter half of March and was continued till the 8th August following; during this period 375 persons, on the average, daily received relief in their own homes, generally in the shape of grain. Relief works were opened in February, and at the end of the month 5,377 labourers were employed. In the first week of March

there was a sudden rise to 12,025. but a fortnight afterwards the number fell to 7,936, owing to the incoming of the *rabi* and *mahua* harvests. After this, it gradually rose till it reached the maximum of 25,040 at the end of May. It was then discovered that the prescribed rates of wages were too high, that the manner of enforcing work was too lenient, and that many of the labourers were putting by savings out of their daily wages. On this discovery being made, orders were given for the enforcement of task-work and for payment of wages in grain, with the result that the number of labourers fell at once from 25,040 to 1,493 in the beginning of June; and even of this small number 822 were professional Nuniyas employed on special work. The works were finally closed in July.

At no time during the distress was any actual scarcity of food felt in the district, then a subdivision of Lohardaga. When the authorities saw that a famine was imminent, they invited the assistance of the *zamindars* and encouraged grain-dealers to import foodgrains; and even the ordinary cultivators were moved to utilize their plough cattle for importing grain on their own account. Large quantities of grain were thus kept pouring in from Lohardaga and the states of Sirguja, Gangpur and Jashpur. The country was in fact soon overstocked with food. Over and above this, *mahua* became so abundant that in August it was reported to be selling at 5 maunds for the rupee and to be unsaleable in many places. The total expenditure in this famine was Rs. 2 lakhs, of which Rs. 1½ lakhs were spent on the wages of labourers, and Rs. ½ lakh were advanced in the form of loans.

The famine of 1896-97 was the severest through which the district had up till then passed. In this famine the most distressed area covered about 2,563 square miles, with a population of 383,400 souls and was comprised in a broad tract running from east to west through the centre of the district. The worst tracts lay in the revenue thanas of Garhwa, Daltonganj, Balumath, Latehar and Patan. In the north the distress was less acute, and the state of things gradually improved until the Gaya border was reached, the corresponding block to the south, which borders on Sirguja and Ranchi district and which abounds in forest products, was also less seriously affected.

Famine of 1897.

In 1895 there was very little rain in May, heavy rain in June, July and August, moderate rain in September, slight rain in October, and none in the remaining months of the year. The result of this unfavourable distribution was that the *bhadai* crop was only an 11-anna one, the winter rice crop a 10-anna one, and the *rabi* crop an 8-anna one. In 1896 the distribution of the rain was very similar, for there was no rain in May, very heavy rain in June, July and August, moderate rain in September and no rain in October. The result was that the outturn of *bhadai* was only $9\frac{1}{2}$ annas, and that of winter rice 5 annas only. Again, owing to there being no rain in October, and none till the last week in November, very little *rabi* was sown, and a fair yield was obtained only from crops sown in the beds of reservoirs. After the rain in the end of November large areas were sown with wheat, barley and grain, but these crops, as well as those sown on high lands in October, were attacked, some by rust, and others by crickets and other insects. The result was that the outturn of *rabi* did not exceed $6\frac{3}{4}$ annas. The *mahua* crop, which promised at one time to be a bumper one, was also so seriously damaged by storms of wind and rain, accompanied by thunder and lightning, in February and March, that only a 6-anna crop was eventually gathered. The mango crop again was an absolute failure, the blossoms having been entirely destroyed by the inclement weather in March.

With bad crops in 1895-96 and worse in 1896-97, the district was soon reduced to a state of famine; and what aggravated matters was that the surrounding districts were reduced to the same plight. In October 1896 prices began to rise and soon went up to famine rates; and in the beginning of December it was estimated that the stock of food remaining in the district was only sufficient to meet the requirements of the people for about a month. In the middle of January exports from the Ranchi plateau suddenly ceased almost entirely, while all exports from the states were stopped by the orders of the different chiefs. The average price of rice rose to 8 seers 11 chittaks, and at the end of the month works were started. These were converted into relief works in the ensuing month, the distribution of charitable relief was commenced, and in view of the dangerously depleted stocks, Government sanctioned a bounty on importation. By the end of April the average price of rice had risen to 6 seers

13 chittaks per rupee, but in spite of this the number on relief works was surprisingly small owing to the advent of the *mahua* season and to the consumption of jungle products. Prices continued to rise steadily, and by the end of June the average price of rice had gone up to $6\frac{1}{2}$ seers and of Indian corn to about 8 seers, while *mahua* had risen to $17\frac{3}{4}$ seers per rupee, as compared with 36 seers at the same time in the previous year. Still the anomaly of unexpectedly low numbers on works continued. The numbers on private relief works remained constant at about 3,500 to 3,600, while on the Government relief works the attendance averaged only about 2,750, the explanation being the departure of the people for their fields. The numbers relieved by cotton spinning, etc., slightly increased, and those on gratuitous relief numbered 2,400 at the end of the month.

Everything now depended upon the coming *bhadaï* and rice crops. Between May 15th and June 26th only $4\frac{1}{2}$ inches of rain had fallen, and the total fall up to the end of July was 6.70 inches below the normal (viz., 14.85 inches as against a normal of 21.55). The prospects of the winter rice began to be very gloomy, and prices meanwhile continued to rise; but the numbers both on the Government and private relief works steadily fell off and by the end of the month only 1,943 persons remained at work, the explanation still being that all available labour was required for the fields.

By the middle of August rice was selling at less than 6 seers per rupee at one-half of the markets in the district, and at half of these at 5 seers or under, the average rate for the whole district being only 5 seers 15 chittaks per rupee. These are prices that point unmistakably to an almost complete exhaustion of the local stocks; and this remark applies not only to rice but to all other food-grains, the general rise of which in price during the seven weeks from the 26th June to the 14th August will be seen from the

—		26th June 1897.	14th August 1897.
		Sr. ch. (per Re. 1)	Sr. ch. (per Re. 1)
Wheat	...	8 7	7 0
Gram	...	9 0	7 3
Barley	...	10 2	7 0
Mahua	...	17 12	12 8

figures in the margin. But by the end of August the time of need had passed. Full *bhadaï* and rice crops were by this time practically assured, and the

bhadaï harvest had already commenced. Meanwhile, the

numbers on the relief works had dwindled down to under 1,000 by August 28th, while those on gratuitous relief had also decreased by several hundreds. In the circumstances, and especially as the new crops were now coming in at much reduced rates, the relief operations were finally discontinued on the 31st August 1897.

Altogether 244,334 men, 190,137 women and 72,693 children, or a total of 507,164 persons reckoned in terms of one day, were employed on relief works during the famine, representing a daily average of 0.32 per cent. of the population affected. The aggregate number in receipt of gratuitous relief from the 23rd January to 31st August 1897 was 131,883 men, 239,283 women and 82,775 children, making a total of 453,941, the maximum number of persons thus relieved being 4 per 1,000 of the population affected. The greatest difficulty in this famine was to secure the importation of supplies, and for this purpose Government sanctioned the payment of a bounty of 8-annas per maund of rice imported, and gave advances to enable merchants to purchase supplies. Under the bounty system the total importations into Palamau from February to the end of August amounted to 14,227 maunds of Burma rice and 5,465 maunds of country rice. The Government itself also imported about 15,000 maunds, when it was found in June that prices still rose to an alarming extent and that there was difficulty in procuring food for the labourers on relief works. The death-rate during the famine was 36.40 as against 33.84 per mille, the average for the five previous years. No deaths were caused by starvation, and the excess over the average of the preceding quinquennium must be attributed to the results of privation, and the general weakening of the system caused by the consumption of jungle products without a proper mixture of more digestible food, which made the people more susceptible than usual to any form of prevailing sickness.

Famine of
1900.

The famine of 1900 was far less severe than that of 1897, and there was this marked difference between the two that in 1897 Palamau began the struggle with very little, if any, spare stocks in hand, whereas in 1900 it started with two bumper years behind it. The area severely affected was also far smaller, only one thana, Mahuadanr, with an area of 502 square miles and a population of 26,153, being declared a famine area, though regular relief was given at the expense

of Government in all thanas except Husainabad and Chhattarpur in the north. The cause of the scarcity was the partial failure of crops which resulted from the unseasonable rainfall of 1899. In 1898-99 the total rainfall was normal and its distribution favourable, the consequence being that the outturn of all crops was good. In 1899-1900, although the rainfall was only 4.8 inches less than the normal, the distribution was disastrous. After preliminary showers in April and May, rain fell with ill-timed prodigality in June and July, and, though it benefited the winter rice crop, it seriously injured the chances of the *bhadai* crops. The winter rice, which promised well in August, required good rain in September to ensure its coming to maturity; but the rainfall in that month was only 1.18 inches against a normal fall of 7.81 inches. In the months of October, November and December, in which light showers were wanted for the *rabi* cultivation, there was no rain at all, except .37 inch in October; and the area cultivated was accordingly greatly contracted. At first, it was feared that even the small crop sown would be a total failure and, though this disaster was averted by timely rain in January, the outturn was no more than 43 per cent. The *mahua* crop was also damaged by windy and cloudy weather in April and May and yielded an outturn of only 37 per cent.

The outturn of rice was only 32 per cent., and seeing that this crop is estimated to provide one-third at least of the year's supply of grain, it was evident that there was a serious deficiency in the food-stocks. At the end of October 1899 Government sanctioned the opening of the reserved forests to the people for the collection of edible jungle products. Enquiry showed that many persons who were accustomed to two meals of rice daily were taking one meal of rice and one of *mahua* or other jungle products; others were living entirely on jungle products. In many cases it was found that a villager had kept a small stock of grain for seed and was resisting the temptation to use it for food and subsisting on food collected in the jungles; and in many bazars *sal* seeds were regularly sold for food. In November 1899 Government authorized the granting of loans in order to stimulate the importation of grain, and the immediate effect of this measure was to renew the activity of the traffic in grain, which was almost at a standstill.

The first distinct indications of the necessity of relief measures were observed in March at Mahuadanr, where the people were already in want of sufficient food, the food-stocks being depleted, while the only supplies offered for sale at the *hat* were obtained surreptitiously from Sirguja, exportation from which had been forbidden by the chief. By the end of March it had been found necessary to open test-works in this and five other *thanas*, for the *mahua* crop, which may usually be taken to be equivalent to a two months' supply of food, had proved a failure, while the mango crop had also everywhere been affected by blight, and in most places had completely failed. In May the price of common rice was as high as 6 seers 3 chittaks per rupee at Mahuadanr; and on the 19th May that *thana* was declared a famine area. By the 31st May work had been opened on as many as 58 irrigation *bandhs* in the numerous Government villages in the Daltonganj, Patan and Latehar *thanas* as well as on seven separate test-works in the Mahuadanr and Balumath *thanas*. Seven kitchens had also been opened by the end of June in Mahuadanr *thana*, at which a daily average of 379 persons were fed; and subsequently 19 more were opened in different parts of the district. With the harvesting however of the *bhadai* and the promise of a good winter rice crop, the numbers on relief works continued to fall steadily from the last week in July. During the week ending on the 11th August there were only 1,005 persons at work, and by the end of August, the number had been reduced to 616. All works classed as famine works were then finally closed, any remaining open after that date being carried on by the district board or maintained as works of improvement in the Government Estate. The kitchens were kept open until September 8th, when they were all closed.

The total number of labourers on test and relief works in Mahuadanr, reckoned in terms of one day, was 27,991, and the total number on test works in other parts of the district was 191,749. The death-rate from October 1899 to September 1900 was 47.81 per mille, as against an average of 35.56 for the preceding five years. This high mortality was partly due to a severe epidemic of cholera and may perhaps partly be explained by the fact that the period of distress was preceded by two years of good crops, fair general health and a normal death-rate, in which a large number of persons of low vitality must have maintained their existence, who were unable to survive in a period of scarcity or disease.

Palamau like all other parts of India suffered in the double crisis brought about by the failure of the monsoon and the influenza epidemic in 1918. The district was indeed in some respects fortunate. The rice crop of the previous winter and the *rabi* crop that followed it were both good; the *bhadai* crop of 1918 was affected to some extent by the irregular distribution and early cessation of the rainfall: but the *mahua* crop during the worst months of 1919, when all the Government forests were thrown open for its collection free of charge, was good and above all there was a good crop of lac. Although therefore the outlook was sometimes extremely threatening, the worst did not come to the worst and famine was not formally declared in any area. Scarcity of 1919.

No rain fell in 1918 after September 15th. The paddy crop on the upper, unirrigated lands, of which the percentage in this district is high, failed and the area sown with *rabi* crops was estimated at only one-quarter of the normal. When it was realized that there were bad times ahead, attempts were made to encourage the unemployed to emigrate; landlords were advised to provide work for their tenants and labourers, if they did not want to lose them, and promises of loans under the Land Improvement Loans Act were circulated. The appeal to emigrate fell on deaf ears, but the appeal to the landlords met with a generous response: many of them, though at the time smarting under the curtailment of their incomes by the fair rent settlement, provided useful work for their tenants where it was needed and followed the example of Government in allowing the people to collect the *mahua* blossoms from their trees free of charge. The promises of land improvement loans were also appreciated and many applications were received. Loans under this Act to the extent of over Rs. 46,000 were distributed from January to July 1919, which helped to provide employment during the dry months when it was badly required. Loans under the Agriculturists' Loans Act for the purchase of seed were also made subsequently, but they were delayed till the last moment so that they might not be diverted to the purchase of food and drink. At the end of May and beginning of June 1919 Rs. 1,39,000 were distributed in small sums in this manner.

On January 30th, 1919, there occurred a hail-storm which at the time seemed to extinguish what hopes there were for the crops. It affected most of the district and was particularly bad in Daltonganj. The ground was white as with

a fall of snow and hail-stones were picked up which were two inches in diameter. It was feared that this storm had destroyed any *rabi* crop that had been sown and all hopes of the *mahua* and the lac crops into the bargain. Fortunately these three crops survived remarkably well, and in fact the storm was useful in creating a general, if temporary, demand for labour for the repair of damaged roofs. Thanks to the survival of these crops and the employment provided by the land improvement loans the district was carried through till the monsoon broke early in June and created a fresh demand for agricultural labour; the monsoon in 1919 was a particularly good one and there was no further difficulty in providing remunerative employment for the population. Only in Mahuadanr, where the conditions that saved the rest of the district do not obtain, where there is little lac and *mahua*, did the scarcity develop into real distress. Employment in this area was afforded by the construction of the track along the Pakripat plateau in Ranchi district on the eastern side of the Mahuadanr valley. The landlords of the valley also provided work and, when distress was actually felt, they maintained a kitchen which was placed in charge of the sub-inspector of police and the district board doctor at Mahuadanr. The Roman Catholic missionaries also opened a grain shop with funds supplied to them and another shop was opened by the agent appointed by the Deputy Commissioner in accordance with the scheme described below. Rs. 20,000 were distributed in agricultural loans. By the end of May it was estimated that another 1,000 maunds of grain must be imported into the valley to enable the population to survive till the next crop could be cut. An attempt to import it from Daltonganj was frustrated by the Koil rising in flood at the break of the rains: the Khas Mahal Deputy Collector, who was in Mahuadanr at the time in charge of the relief operations, realizing what had happened made a rapid journey to Lohardaga to arrange for the import of the required grain over Netarhat and thereby saved the situation.

When therefore the monsoon broke in June 1919, the difficulty of providing the people with work and so with money disappeared, but the difficulty of providing them with food to purchase with their money still remained till the crops of 1919 could be reaped. Palamau is always a "deficit" district which imports more foodgrains than it exports; in 1919 the deficit was very marked and the fact that practically all

other districts were suffering from a similar deficit at the same time, that imports from Sirguja were stopped, and that there was a serious shortage of rolling stock on the railways, made the situation a difficult one. The transport of goods by rail at this time was controlled by the Controller of Civil Supplies through the system of priority certificates. At first the requirements of the district were calculated on a consideration of the amount of food available in the district and the population to be fed; but by the time these calculations had been proved to be completely unreliable and far in excess of requirements some months had elapsed and it was possible to frame a more reasonable estimate on the basis of actual imports. The system of priority certificates had meanwhile shown that it was open to abuse by unscrupulous dealers and it was found necessary to eliminate them. The district was therefore divided between eight authorized importing agents who were allotted particular areas in which they were supposed to sell at fixed prices at a profit of one anna in the rupee. This system in turn failed to give satisfaction and the distribution of foodgrains gradually came more and more under direct official control. The first venture in this direction was the shop in charge of the missionaries in Mahuadanr which was opened in February with funds supplied by the Deputy Commissioner. At the beginning of April a large quantity of grain was purchased and a shop which was named the " Dharamgola " was opened in the old jail building in Daltonganj at which rice was sold at 11 *kachha* seers to the rupee. By the middle of May the stock of food in the town was dangerously low; the merchants who might have been financing its import and distribution had locked up their money in buying lac for the export of which they found they could not get priority certificates and they were also deterred from importing rice by the fact that there were certain cheap sources of supply which were not, but might at any time, be opened to the district from which they could be under-sold. On the other hand the Dharamgola under the charge of the District Sub-Registrar continued to thrive and presently developed into the District Co-operative Grain Society, administered by the Deputy Commissioner with the assistance of a committee, to which handsome subscriptions were made by the Kumar Sahib of Tori, the Raja of Chainpur, the district board and the municipality. In June the district received its first consignment of rice from Burma through this society. Forty thousand maunds of Burma rice

were sold in addition to 3,500 maunds of other varieties. The demand for this rice continued till the following September when it suddenly ceased, the last bag being sold in November. Twenty-two branch shops were opened and the total profits of the society were over Rs. 11,000. The cessation of the activities of the society marked the end of the period of distress and by the autumn of this year comparatively normal economic conditions were restored.

The death-rate during this period was appalling, but this was owing to the influenza epidemic which coincided with the failure of the rains and filled the cup of the afflicted population. Forty-nine thousand persons died in 1918 and 25,000 in 1919, which gives death-rates of 71·8 and 36·3 per mille respectively in those two years. The greatest mortality occurred in November 1918, but that was before the effects of the deficient rainfall had had time to make themselves felt. Further information regarding the influenza will be found in chapter IV. There is no evidence that the scarcity directly affected the death-rate: it caused suffering and predisposed towards disease, but no deaths were directly attributed to it.

GENERAL
OBSERVA-
TIONS.

The experience of these five famines suggests certain observations. In the first place, the complete or partial failure of the *hathiya* rains is the invariable precursor of a period of scarcity. When this occurs in a year which follows a year of bad harvests, as happened in 1897, the scarcity will be very much more severe. The south of the district, excluding the Chhechhari valley, depends chiefly on the *bhadai* harvest and lives habitually in a state of less comfort than the remaining parts of the district; but when the real pinch comes it is less liable to collapse than the other parts, partly because it depends less on the single rice crop, and partly because it has resources in the jungle products which are not so freely available elsewhere. The Chhechhari valley is dangerously isolated, and when the rice crop fails there, as it did in 1900 and 1919, it is a matter of difficulty to get the food to the people or the people to the food; it would appear desirable to open some road into the valley which will be available for wheeled traffic all the year round. It is impossible to rely on food coming into Chhechhari from Sirguja on these occasions, for if there is any threat of danger there, all exports are at once stopped. Finally, the people do not readily come to relief works and the system of famine relief contemplated by the

code has never been extensively applied except in 1874 when, as the account of that famine shows, it was freely abused.

In 1923 the District suffered from a dramatic but brief calamity in the shape of a flood of the Son, which rose to an unprecedented height and did much damage along the river bank on the northern fringe of the jurisdiction of Bhaunathpur police-station, from Khokha on the Mirzapur border to Sunripura where the Son joins the Koil. The flood was caused by an exceptionally heavy and uninterrupted downpour of rain in the area drained by the river in the Central Provinces. It was first noticed in Palamau in the small hours of the morning of Saturday, August 18th. During that morning the villagers went to the river bank to collect for use as fuel the trees and branches that were being swept down in the flood. The river continued to rise till 2 P.M. in the afternoon, and a number of the villagers who had gone to the river bank had to climb up into trees to save themselves. The flood remained at the unprecedented height which it had then reached till 10 A.M. on Sunday, August 19th. The population of the village of Sonpura and the surrounding *bastis* had climbed up into trees or on to the roofs of their houses, and the trees and houses were now beginning to collapse in the swirling water. Seventy-nine lives were lost in this manner during these critical hours, including the whole of the inhabitants of the *Dom tola* who had climbed up into a large tree as the flood rose. The water receded to some extent during Sunday afternoon, but some people remained cut off in the trees or on the roofs for three whole days, and three children were born in the branches of the trees. A boat had meanwhile arrived at Sonpura from Sunripura, which assisted in collecting the refugees and bringing them to the *garh* of Babu Bisambharnath Sahi of Sonpura. A crowd of 800 persons had collected in his house by August 22nd. Two other boats that were in Sonpura were chiefly occupied at this stage in saving the belongings of some of the wealthier residents of the village.

There is no bridged road and no telegraph to Sonpura, and not a word of information regarding the flood reached Daltonganj till August 21st. The Sonpura estate was at that time still being administered under the Encumbered Estates Act, and the Manager, who was intimately acquainted with the neighbourhood, was despatched that evening to the scene of the disaster with means of relief. He reached Sunrki, which is about four miles from Sonpura, on the 22nd. He found that

the flood had receded, leaving behind it a sea of mud, and he also found that there was not a single boat at Sonpura. That afternoon he started distributing relief. In the early hours of the following morning he saw that the river was rising again. The first thing to be done was to collect boats, a matter of some difficulty, but the work of rescuing the people who had again taken to the trees began that afternoon, continued till 10-30 p.m. that night, and was resumed on the following day, during which time 1,200 persons were brought to safety. Meanwhile the crowd had been penned up in the house at Sonpura for some days and steps had to be taken to prevent an outbreak of cholera there and in the neighbouring villages, which also were crowded with refugees. Fortunately this danger was averted and, apart from some fever, no epidemic occurred.

In all 33 villages were affected and 1,381 houses were destroyed. More serious was the damage caused to the fields of what was perhaps the most fertile tract of the district. The fertility of Baliari was proverbial. "Sau Untari, na ek Baliari". But when the flood receded it had left a deposit of some six feet of sand over the best lands in the village. Other villages seriously affected in this way were Sonpura, Nawadih, Pindraha, Kishunpur, Gara Kalan, Gujaria, and Kadhwan. A sum of nearly Rs. 5,500 was collected in Daltonganj for immediate distribution to the afflicted population: to this sum the wealthy and the poor contributed after their means and a handsome subscription was received from a generous Indian gentleman of Bombay who desired to remain anonymous. A sum of Rs. 40,000 was distributed in loans, principally for the rebuilding of houses, and steps were taken to encourage the cultivators to apply for a reduction of rent on the ground of the deterioration of their holdings. The flood was also very serious in Bihar, but in no district was the loss of life in any way comparable to what occurred in Palamau. The reason for this was that elsewhere the water could spread itself out over vast areas a foot or two in depth; but in Palamau the water rose to a much greater height, as it was held up between the Kaimur hills of Shahabad on the north and on the south by the low hills of Bhaunathpur which reach down to the point at Sunripura. Consequently, when the houses and trees began to collapse, there was little hope of saving the refugees who had taken shelter in them and who were swept down with them into the flood.

CHAPTER VIII.

RENTS, WAGES, AND PRICES.

The most common system of rent assessment in Palamau was originally the *paria* system, by which the rent was assessed on the so-called *paria*. "The *purrea*", wrote Mr. Forbes, "is a creation of the aboriginal tribes, and is the only system they understand; they consequently prefer it above all others. The basis of the system lies in the division of certain of the village lands, generally the rice lands, into a number of *purreas*, each of which carries with it the right to a certain extent of upland without increase of rent." In practice all idea of proportion between upland and rice land was lost, and the cultivators assumed the right to cultivate without increase of rent as much upland as they chose. In the absence of rice lands the best uplands were divided into *parias*. There was no restriction on the number of *parias* in a village. The *parias* often differed greatly in size and value, but the rent payable in respect of all of them was identical. Sometimes the *parias* were subdivided into *pawas* and *annas*, and a fraction of a *paria* was often taken in order to obtain the right to cultivate an indefinite area of the village upland. The *paria* carried with it the right of reclamation and to a share of the *mahua* trees of the village. The *pattidari* system of Tori *pargana* was very similar and so were the *chhattisa* and *jiban* systems of Tori and Mahuadanr.

OLD SYSTEMS
OF RENT
ASSESSMENT.

"The *kanwa* system in Palamau," wrote Colonel Dalton, "is essentially different from the *parreadaree*. A village is divided into 16 shares or *kanwas*, a lump sum is assessed on the entire village, and this is paid by the raiyats according to the number of shares or proportion of a share held by each. A share includes a proportion of all kinds of land, and also of jungle and *mohwa* and mango trees". This system was found intact in only a few villages at the time of settlement.

The *uttakar* system was the system of assessing units of land to rent by classification: the term was most commonly applied to the assessment to rent of lands not included in the cultivator's *paria*, and was used also by landlords who attempted to assess a separate rent on upland cultivation.

According to the *hartaki*, or *haraika*, system rent was paid according to the number of ploughs in the cultivator's possession. The system was only in force in very backward areas.

The *kitai* system was found in Untari. By it blocks of land were settled with cultivators on a lump rental.

FAIR RENT
SETTLEMENT.

The result of the settlement of 1913-20 has been that all these indigenous systems have been superseded. Each plot has now been classified and rent at an appropriate rate assigned to it. No question raised greater trouble and difficulty at the settlement than this matter of rents, and a controversy occurred as to whether there was a case for settling fair rents and what rates of rent were fair. It was generally admitted that previous to the settlement the tenancy law was a dead letter in the district and that rents had been illegally enhanced on all sides: indeed the decision that a settlement should be made in the district was itself the occasion of a further widespread and illegal enhancement. It is unnecessary to relate in detail the differing views that were expressed on this subject: it is sufficient to refer to chapters IX and X of the Settlement Report of the district and to record that Government eventually accepted the view that the rents claimed were disproportionate to the capabilities of the land and that they must be brought into a reasonable relation to the gross produce. In consequence, the settlement eventually led to a general reduction of rents, in the Government estate as well as in the villages owned by private proprietors. It was not until after the settlement had been in progress for some two years that Government decided that a general settlement of fair rents was required, and a notification was issued to that effect in respect of all areas of which the rent had not at that time been attested, viz., to three quarters of the district. In regard to the remaining quarter that had already been attested, the landlords on the one hand and the Deputy Commissioner on behalf of the raiyats on the other were invited to apply for a reduction of rents in any case in which they were dissatisfied with the attested rents. The general principle that

was followed in the private estates was that the attested rents should not be reduced unless they exceeded one-third of the value of the gross produce, and that there should be a limit to their enhancement of 20 per cent. of the gross produce, or 50 per cent. of the rent attested, whichever was less. After a series of crop-cutting experiments further limitations based on the productive powers of the land were proposed and accepted, and the following rates were accepted as the maximum and minimum rates of rent for each class of land. The maximum rates were adopted as being the equivalent of 20 per cent. of the highest average outturn of the best fields of the class over a series of years; and the minimum rates were adopted as being the equivalent of 20 per cent. of the normal outturn of the worst fields under similar conditions. For the sake of comparison the corresponding maximum and minimum rates of rents in Hazaribagh and Ranchi are also given in the following statement :—

District.	RICE LAND.			UPLAND.		
	I.	II.	III.	I.	II.	III.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
PALAMAU—						
Maximum rate ...	10 8 0	7 0 0	4 3 0	6 4 0	2 0 0	6 8 0
Minimum „ ...	6 4 0	4 3 0	1 11 0	3 2 0	1 0 0	0 4 0
HAZARIBAGH—						
Maximum rate...	5 5 6	3 7 0	2 1 8	4 4 6	1 6 6	0 5 6
Minimum „ ...	2 0 0	1 4 0	1 0 0	1 4 0	0 4 0	0 1 0
RANCHI—						
Maximum rate ...	3 2 0	2 8 0	1 9 0	0 15 0	0 5 0	0 2 6
Minimum „ ...	2 12 0	2 3 0	1 6 0	0 13 0	0 4 3	0 2 3

Although the Palamau rates are markedly in excess of those of Hazaribagh and Ranchi, the settlement of rents on this basis in six typical privately owned villages led to a reduction from Rs. 2,466-15-3 to Rs. 1,714-9-8, and the total attested rents were reduced on the whole by 9·7 per cent.

An exception to the above maximum and minimum rates was allowed in the case of Mahuadanr where the general pitch of rents was below that in other parts of the district. Here

In Mahuadanr.

the landlords applied for enhancements and enhancements were allowed, which amounted to 17·57 per cent. of the attested rents, up to the following maxima:—

Rice land.			Upland.		
I.	II.	III.	I.	II.	III.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
2 0 0	1 6 0	0 12 0	1 5 0	0 8 0	0 2 0

In the
Government
Estate.

In the Government Estate the rents assessed by Mr. Sunder in 1896 had been increased in the interval to the extent of 17½ per cent., chiefly on account of the assessment of new cultivation of upland which in most cases represented exchanges of fields. Nevertheless the average of the rents so enhanced represented approximately only 12 per cent. of the gross produce. It was decided that the value of 12½ per cent. of the gross produce should be taken as the general standard of fair rent for each class of land; that maximum and minimum rates should be fixed above and below this standard; and that no rent should be allowed to exceed the maximum or fall short of the minimum. The rates were as follows:—

			Rice land.			Upland.		
			Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Maximum	...	...	6 0 0	4 0 0	2 3 0	3 12 0	1 4 0	0 5 0
Minimum	...	...	3 8 0	2 7 0	1 5 0	2 4 0	0 12 0	0 3 0

The net result of the application of these rates was to reduce the rent roll of the estate by Rs. 6,495 a year. The total of the finally settled rents amounted to Rs. 78,333: this sum does not however include the rents of the urban area of Daltonganj town which was not included in the scope of the settlement.

PRODUCE
RENTS.

The system of produce rents known as *bhaoli* was, and still is to some extent, common in Japla and Belaunja Parganas where the district adjoins south Bihar. The

distribution of the crop, with the reservations explained below, is nearly always half and half between landlord and tenant. Two systems prevail for dividing the crop.

1. *Batai* or *Adhbatai*. By this system the crop is actually divided on the threshing floor. Great vigilance is required on the landlord's part and watch is kept day and night to ensure that he is not defrauded of any part of his share. Before the crop is actually divided into two halves, certain deductions are made. One tenth part of the undivided gross produce is allowed to the tenant for labour (*bani*); or, if he has already appropriated one bundle out of every 21 bundles for this purpose on the field, he gets an allowance of 5 instead of 10 per cent. The tenant gets another 5 per cent. for watching the crop (*agwar*), and he gets also, irrespective of the amount of the crop, an allowance for each plough and for paying the dues of the village carpenter and blacksmith. He is also entitled to take the husks and straw. But he pays his share of the road cess out of his share of the crop after division.

2. *Danabandi*. By this system the crop is appraised, i.e., the outturn is estimated in the field, when the crop is standing ready to be cut, by a *shudkar* or appraiser. After he has made his estimate, a village *panchayet* is appointed, partly by the landlord and partly by the raiyats, the members of which visit the land accompanied by a *kathmara* or measurer, and by the *patwari* or village accountant or some other writer. They pass from field to field measuring and estimating the crops, the *patwari* recording opposite each tenant's name the amount or weight of grain estimated and the share he has to pay to the landlord or person entitled to the rent, all village dues which by custom are payable by both parties being deducted from the quantity estimated. If no agreement is come to, the tenant cuts a certain area where the crop is poorest and the landlord where it is best; the produce of both plots is then measured and the average thus determined is accepted. If however the dispute cannot be settled even so, the tenant is entitled as a last resort to an actual division of the crop. For the dues, which are actually paid by the tenant, he receives an allowance from the undivided crop of 20 per cent. (*sawai*) for labour (*bani*) and watching (*agwar*), for grain mixed with dust (*tari*), and the wages of the village carpenter and blacksmith: he gets

another 4 per cent. (*dusra shikast*) for field boundaries and uncultivated portions included in the estimated area of the field. Thus the tenant eventually pays the landlord half of 76, or 38 per cent., of the gross crop. After the whole appraisal has been completed, each tenant is furnished with an abstract, called *utara*, showing exactly how much grain he has to deliver, and when the crop is harvested he has to make over that amount or its equivalent in cash to the landlord. If the tenant pays in cash he is supposed to pay at local rates, but the landlords frequently demand to be paid at market rates which are much higher. Where there is no collusion the estimates are pretty accurate; but sometimes the members of the panchayet have a private understanding with the tenants and very frequently they are the paid creatures of the landlord, so that the working of the system furnishes many opportunities for fraud. Sometimes moreover an oppressive landlord will insist on the crop rotting in the field if the tenant does not accept the appraisalment he desires. It is true that the tenant by customary right may take the crop, but he knows that if he does he will be sued for an impossible rent, probably calculated on a very high average for a series of good years.

Commuta-
tion
of produce
rents.

The effect of the settlement was to encourage the tenants to apply for commutation of their produce rents to cash rents; over 1,500 such cases were disposed of by the settlement officers and numerous applications have since been made to the Deputy Commissioner. The cash rents were ordinarily fixed by the settlement officers at the mean between the prevailing rate of cash rents and the value of the produce rent paid to the landlord, according to the landlord's books, if they could be obtained and were thought reliable, otherwise according to calculation: but if this mean exceeded the maximum rate allowed at the fair rent settlement, the rent was reduced to that figure.

RESOURCES
OF THE AGRI-
CULTURAL
POPULATION.

Certain figures are available in the settlement and census reports which throw some light on the resources of the agricultural portion, or 80 per cent., of the population. Of the total rice land of the district (178,154 acres), the landlords hold 30 per cent. and the tenants 70 per cent. (settled and occupancy raiyats 66.5 and other raiyats 2.6 per cent.). Of the total upland of the district (695,411 acres), the landlords hold 21.8 per cent. and the tenants hold 78.2 per cent. (settled and occupancy raiyats 75.3 and other raiyats 2.9 per cent.).

The annual value of the gross produce of the whole is calculated on the basis of crop-cutting experiments to be

POPULATION SUPPORTED BY
AGRICULTURE.

(CENSUS TABLE XVII.)

Group 1.—Income from rent of agricul-
tural land.

Workers.	M.	...	1,445
	F.	...	181

Dependants	...	1,626
	...	3,038

Total	...	4,664
-------	-----	-------

Group 2.—Cultivators.

Workers.	M.	...	130,983
	F.	...	76,122

Dependants	...	207,105
	...	313,045

Total	...	420,150
-------	-----	---------

Group 5.—Field labourers.

Workers.	M.	...	27,496
	F.	...	39,275

Dependants	...	66,771
	...	31,676

Total	...	98,447
-------	-----	--------

Group 187.—General labourers.

Workers.	M.	...	31,036
	F.	...	36,533

Dependants	...	67,569
	...	31,042

Total	...	98,611
-------	-----	--------

Rs. 66,89,000 of which Rs. 17,38,000 is the value of the crops on the landlords' land and Rs. 49,51,000, the value of the crops on the tenants' lands. Out of the latter a sum calculated at Rs. 8,11,000 on account of cash rent and Rs. 1,17,000 on account of produce rent, or a total of Rs. 9,28,000, passes annually from the tenants to the landlords by way of rent. A sum of Rs. 49½ minus Rs. 9¼ or Rs. 40¼ lakhs is therefore the annual income from agricultural land of the tenants of the district, and Rs. 17 plus Rs. 9¼ or say Rs. 26½ lakhs the share that falls to the landlords. The relevant census figures are given in the margin.

The agricultural population includes roughly the groups described in the census tables as rent receivers, rent payers, field labourers and also a considerable portion of general labourers. The general labourer works as an agricultural labourer when so required and at other times looks for unskilled labour elsewhere: this is proved by the fact that general contractors find difficulty in attracting labour when it is required in the fields. It is therefore in many cases a matter of chance in which census group a labourer finds himself. In the settlement report a calculation is made which assigns the landlords' share of the produce of the fields to the landlords and their dependants alone, and the tenants' share to the rest of the agricultural population. But this method does not allow for the fact that the greater part of the labouring population is maintained out of the landlords' share of the produce. It would appear to be more satisfactory to assign the

tenants' share of the produce to the tenants, who do most of their own work, and their dependants, and to treat the balance of the produce as what is available for the landlords and the labourers. Proceeding in this manner we find that there is a total population of 420,150 to be maintained each year on Rs. 40½ lakhs, from 168,784 holdings each containing on the average 0·71 acres of rice land and 3·17 acres of upland. The sum available per head of this population is therefore something between Rs. 9 and 10 a year. For the rest of the population, i.e., the landlords *plus* the labourers, who together amount to less than half the number of cultivators, a sum of Rs. 26½ lakhs is available annually: there is nothing to be gained by striking an average for an aggregation which contains individuals maintaining such divergent standards of living as the landlords and the labourers. In making these calculations it must be remembered that no allowance is made for income derived by agriculturists from sources other than agriculture, which in this district are particularly important. At the census made in 1921 it was found that 41,000 persons were cultivating lac on approximately 1½ million trees, nearly all *palas*: the cultivation of lac is in fact, if less intensive, far more extensive than in any other district in the province, and the lac crop is probably rather more valuable than the produce of the fields. Again, jungle fruits and edible roots are available here to an extent to which they are not in most other districts. The calculations above must therefore not be taken to mean too much. A more direct and reliable indication of the poverty of the cultivators of the district is to be found in the fact that though there is no reason to suppose that the soil of Palamau is specially rich, rather the contrary, the general pitch of rents, in spite of the reduction effected by the settlement, is still twice as high as in Ranchi or Hazaribagh, as is shown by the figures at the beginning of this chapter. It used formerly to be argued that there was a competition amongst the landlords for tenants and that the necessary consequence of this competition must be that the tenants were secured from oppression. This fallacy has now been exploded. The competition, such as it was, was not for tenants but for agricultural labourers, and the conditions necessary to a free competition which might have been beneficial to the labourers if the demand for them exceeded the supply, were not present for the labourers were not at liberty to move freely about and work for the highest bidder.

In practice the landlords were all-powerful and as usual, in the absence of salutary checks, this power was abused. This is not to say that there were not among the landlords of Palamau men who regarded themselves as the protectors of the poor, as the father and the mother of their tenants: in no district could happier instances be found of the paternal relation between landlord and tenant, and it is still "most refreshing to see the amity and good will that exist between the members of one of the leading families and their people". A system however by which in practice so much was left to the discretion of the individual landlord was open to grave abuse and the tenants were in fact freely exploited. These causes of the depression of the cultivating classes, insecurity of tenure and high rents, have now largely been removed by the settlement. Occupancy rights have been recorded in nearly 169,000 holdings, and rents have generally been reduced and fixed, so far as the Chota Nagpur Tenancy Act permits them to be fixed. The tenants have now, what they did not have before, an inducement to improve their holdings. Their other main disability, consisting in the dryness and poverty of the district, which so impressed the Irrigation Commission, remains. Irrigation schemes designed to catch the rain as it falls and store it for distribution when required are numerous but on a small scale, and the number of them that have fallen into disrepair shows that it is not so easy to design or maintain them as might be supposed.

The co-operative movement, which will help to provide capital for such improvements, is still in its infancy. The history of the movement in Palamau begins from the year 1919, when Thakur Bhola Nath Sinha began to organize societies in Panki and the Rev. A. C. Watters in Latehar. In 1924 a central bank was formed with a capital of Rs. 45,000. The working capital of the bank is now double what it was then, and loans have been made to 97 societies in the villages at the usual rate of $12\frac{1}{2}$ per cent. per annum. The societies are most numerous in the neighbourhood of Latehar, Lesliganj, Satbarwa, and Panki; a few are also in existence near Daltonganj and Chhattarpur. The members number between 2,000 and 3,000. It is anticipated that a number of other societies will shortly be opened.

Another factor that will in due course help to free the population from the tyranny of circumstance by giving them greater freedom of movement is the development of the road

system, the starting of motor-bus services, and the construction of the new coalfields railway. All these developments have occurred in the last few years and their effects have yet to be seen. But it may safely be said that the prospects of the cultivator are brighter than they have been before.

INDEBTED- NESS.

If a reliable census could be taken of the indebtedness of the district, it would probably be found that the total cash debt was less than in most other districts. The reason for this would be not the solvency of the cultivating classes, but their poverty and backwardness, which causes them to contract debts usually on a small scale and often in kind. The *buha* system, by which cattle are hired for the cultivating-season and paid for in kind, is explained at the end of chapter VI. It is also a common practice to borrow seed from the landlord or *mahajan* and repay it twofold when the crop is reaped. The fact that cash debts are usually on a small scale does not mean that they are quickly or easily repaid: the borrower escapes no more easily than he does elsewhere. The end of the rake's progress is the *kamiauti* bond described below.

TREES.

The ordinary custom with regard to trees in the district is that trees standing on a raiyat's holding and sown, planted, or nurtured by him or his ancestors are the raiyat's property. Such trees are generally called *atrop*. Trees standing on a raiyat's holding but not sown, planted, or nurtured by him, or his ancestors, are the landlord's property: the timber belongs to him, but the disposal of the fruit is regulated by custom; and if the fruit of a fruit-bearing tree belongs by custom to any person other than the landlord, the landlord may not cut it down till it withers. In the Government Estate the produce of all trees in the raiyat's holding has now been definitely assigned to him free of charge. Trees standing outside the tenants' holdings can be leased, and this is commonly done in the case of *mahua* trees, lac-bearing trees, catechu trees, and (formerly) trees for rearing silk-worms. The rents of these trees are controlled by local custom.

Mahua trees.

In some 1,600 villages *mahua* trees are held on a consolidated rent with the tenants' holdings: in fixing the fair rents of the holdings the settlement officers allowed one anna a year for each *mahua*, that being the rate that was found to be most generally levied. In 450 villages the tenants pay separate rents for the *mahuas*, and in 350 villages they hold them free of rent. The tendency is for the free use of the *mahuas* by the tenants to become more and more restricted.

In the Government Estate the *mahua* trees standing outside the tenants' holdings are settled with the poorest tenants at 4 annas a tree in the north and 2 annas a tree in the south.

The rent of lac-bearing trees is a matter of the greatest importance as the welfare of both landlords and tenants depends very largely on the lac crop : in the Chainpur estate for instance the total lac rents amount to twice the total rents of the tenants' holdings.

In the Government Estate the order already cited allows the tenants the free use of the lac-bearing trees standing on their holdings. The lac trees that stand outside their holdings are at present leased for 5 years to the resident tenants

	Paras and Bair.	Kusum.	of the village, or the adjoining villages at the rates given on the margin.
Northern tappas	1 anna	6 annas.	When this settlement expires, the rates will be levelled throughout the district and increased.
Southern tappas	$\frac{1}{2}$ anna	3 to 12 annas.	

From this source the income derived by Government is at present Rs. 11,000 from 220,000 trees.

Outside the Government Estate the lac-bearing trees are generally the property of the landlords, who let them to the tenants, usually in round numbers, just before seeding time. Thus in the Chainpur estate the trees are leased for the Kartiki crop at anything from Rs. 2 to Rs. 12 per 100 trees, and the rent has to be paid before the trees are infected. For this purpose the tenants have to borrow, and they repay their loan when the crop is harvested with interest at the rate of one *kachcha* seer of lac for every rupee of the loan : in this manner many of them get caught in the toils of the *mahajan*. In the case of the Baisakhi crop the trees are settled with the tenants before seeding time, but the rent is not settled till the crop is ready to be cut. The tenant has then to pay the landlord in cash half (or sometimes rather less) of the value at the prevailing market rate of the estimated outturn of the trees settled with him. In this manner the landlord sometimes gets as much as 10 annas or even more for a single paras tree. If there is a difference of opinion between the landlord and the tenant as to the amount

of the outturn, the matter is settled by crop-cutting experiments. The arrangements made by the other landlords also are generally on these lines.

Khair trees. The landlords also derive income from the *khair* trees in their jungles which are cut for the manufacture of *kath* or catechu, as described in chapter IX. The jungles are leased to contractors who are, or who employ, Mallahs to cut the trees and manufacture the *kath*. The rent is fixed at so much per *chatti* or jar, the usual rate in the forests settled by Government being from Rs. 25 to Rs. 35, though much higher prices were obtained in 1922.

SILK. The right of growing silk (*koa*) in the Government Estate was formerly leased for large sums. Nowadays the rent is negligible, between Rs. 100 and Rs. 200 a year, collected in only two villages. Rent is charged at the rate of Rs. 8 per *hasua* or sickle, the implement used by the man who rears the worms on a group of 10 or 12 trees.

WAGES. The rates of wages have recently increased in the district, partly owing to the general rise in the cost of living that has occurred throughout India, and partly owing to the development of lac cultivation and the construction of the coalfields railway. Round Husainabad also wages have been raised by the demand for labour in the cement factory. Unskilled labourers on the railway are nowadays getting from 8 to 12 annas a day, and the District Board has to give from 6 to 10 annas. The ordinary skilled workmen, such as carpenters and blacksmiths get anything from 12 annas to a rupee. The village servants are however still paid in kind, and so generally are ploughmen who receive grain to the value of about 6 annas a day and a little *sattu*. In the case of agricultural labour however the competition for labour is not free, as the landlord generally controls the labour he requires through the *kamiauti* system, which at its worst is little better than slavery, or the *begari* system.

Kamiauti Information was collected with regard to *kamiauti* at the time of the settlement. It was then established that the system is common throughout the district except in Chhechhari. The cases of 10,472 *kamias* over three-quarters of the district were examined, and it was estimated that the *kamia* population of the whole district, including dependents, amounted to 20,000. The *kamias* were usually Bhuiyas,

Chamars, Kahars, or Dusadhs, and they were usually employed by petty landlords, whose service was naturally more exacting than that of masters in more affluent circumstances. Out of 3,000 cases of *kamias* examined it was found that some two-thirds had entered into their agreements in the last ten years, one quarter between 10 and 20, and one-tenth between 20 and 30 years previously. Out of another group of 368 cases examined it was found that two thirds were the sons of *kamias*. These figures showed that the obligation once entered into was more often than not passed on to the original *kamia*'s children and that labourers were still constantly being drawn to this precarious form of livelihood.

The *kamiauti* bond is generally executed in the first instance when some poor man requires cash for a wedding or a funeral, or for the payment of rent, or even for the purchase of food when times are bad. A bond is then agreed upon, which is usually reduced to writing but not registered. The borrower undertakes to labour for the lender as he may require until the original loan is repaid in cash. He usually receives a house rent-free and about one-sixth of an acre of *bari* land, and possibly a small area of rice land, called *palhath*, in addition. He is to be remunerated for his labour on the days on which he gives a full day's work by 2 or 3 *kachcha* seers of whatever food grain the master may find it convenient to give: at harvest time he receives one out of every 21(or 16) bundles he reaps, which amounts to about 15 *kachcha* seers in 2 days. On the average he is likely to work on 2 out of 3 days in the year. His own remuneration is supplemented by less liberal rewards to his dependants for doing part-time jobs when required. It is clear that at this rate the *kamia* can never hope to save enough money to pay off his original debt, even if other difficulties were not thrown in his way. Once a *kamia*, always a *kamia* and the father of *kamias* unless he can somehow escape or disappear without paying his debt.

The upshot of the report containing this information and of similar reports from other districts was the Bihar and Orissa *Kamiauti* Agreements Act of 1920, which declared that such agreements were void,—

- (1) unless the full terms of the agreement were expressed in a stamped document;
- (2) unless the *kamia* was given a copy of this document;

- (3) if the period of the agreement exceeded or could possibly exceed one year;
- (4) unless the *kamia's* liability was completely extinguished on the expiry of the term of the agreement;
- (5) unless the *kamia's* remuneration under the agreement was fair and equitable.

This Act has not proved effective in suppressing the abuse. The *kamias* are now called *harwais*, but the system is still in existence. The *kamias* are too ignorant and improvident to fight their own battle: if they show signs of independence they are turned out of their houses; and this is a contingency that they will not face. So the matter rests at the present time.

Begari.

The system of forced labour, or *begari*, which is taken from the *raiya*s, has theoretically been abolished by the settlement: all predial services, the rendering of which was a condition of the tenancy, were then commuted into small additions to the tenants' rents. To this day Palamau is removed but a few steps from feudalism. The origin of most of the estates in Palamau was personal service: *jagirs* were given on condition that the *jagirdar* with his followers rendered personal service when required. Similarly the *jagirdars* expected the cultivators of the land included in their *jagirs* to give them their personal service when required. In recent times this personal service has taken the form of work in the fields, and the predominance of the landlords meant in practice that they had the first claim on their tenants' time and that the most favourable occasions were utilized in ploughing, sowing, or reaping not the tenants' but the landlords' fields, greatly to the tenants' detriment. Legally speaking, all this forced labour or *begari* has now been abolished; but it would be idle to pretend that the tenants throughout the district have yet risen to the full measure of their new liberties or that *begari* is no longer taken. Few of the cultivators can read the record-of-rights, and they have all been accustomed from their youth up to regard *begari* as part of the natural order of things. Traditions do not die in a day, and some years must elapse before the name of *begari* is no more heard in Palamau.

PRICES.

In Table IV at the end of this volume are given the retail prices of certain common articles of consumption for the 12 years from 1912 to 1923, which cover the war period of

1914-18 and the period of scarcity in 1918-19. The prices are given for the first fortnight of January, when rice is at its cheapest after the harvesting of the winter paddy, and for the first fortnight of July, when rice is most scarce before the reaping of the autumn crop. In the first edition of this Gazetteer the rise in the price of rice since the formation of the district was illustrated by the figures given in the margin.

Average price in seers per rupee during
last fortnight of March.

Years.	Common rice.		Maize.	
	Sr.	Ch.	Sr.	Ch.
1891-1895	15	5	14	8
1896-1900	13	7	13	5
1901-1905	12	8	20	11

The March prices of rice, it may be noted, are higher than the January prices and lower than those of July. The figures for maize are reproduced alongside, as

these are the two most important staple foods of the district. The price of rice shows a rise of roughly 100 per cent. during the period. The steady rise in price was temporarily affected during the last decade by the restriction of transport during the war which resulted in the accumulation of stocks in the district and a fall in prices in 1917 and 1918, and subsequently again by the failure of the rains in 1918 which resulted in a sharp rise of price in 1919 carried over into 1920. With maize on the other hand there had been a tendency to a fall in price. In January 1912 a rupee could purchase as much as 27 seers. Maize was still cheap in 1918, but since then the price has approximately doubled. The prices of other articles, such as cotton cloth, salt, and kerosene oil, have been governed by circumstances common to the whole of India. Salt became very dear at one stage of the war owing to the restriction of its import from England and speculation in the products of the Indian sources : otherwise variations in its price have resulted chiefly from variations in the salt tax. Generally speaking the cost of living has greatly increased in Palamau as elsewhere in India in recent years.

CHAPTER IX.

OCCUPATIONS, MANUFACTURES, AND TRADE.

OCCUPA-
TIONS.

THE marginal statement shows the distribution of the inhabitants of the district by occupation according to the

	Number. (Workers and dependants.)	Per cent. of population.	census (Table XVII), which is the most convenient frame-work into which to fit the con- tents of this chapter.
1. Agriculture ...	524,976	71.6	
2. Industry ...	47,163	6.4	
3. Commerce ...	30,063	4.1	
4. Professions ...	4,265	0.6	
5. Other occupations ..	126,927	17.3	

1. Agriculture.

Agriculture. The predominant interest is of course agriculture. Of the persons recorded as so employed the greater number (420,150) are ordinary cultivators, of whom 130,983 are male workers and 76,122 female workers, while 213,045 persons of both sexes are dependants. 4,664 persons live on rent derived from agricultural land, and 98,447 are field labourers. Another 98,611 "labourers and workmen otherwise unspecified" are mostly engaged in agriculture from time to time in addition to their other forms of work; if they also were treated as agriculturists, the proportion of the population supported by agriculture would rise from 71.6 to rather over 85 per cent. Further it must be remembered that there are few professional or business men of the upper and middle classes living in the district who do not own some land. If allowance is made for these factors, it will be found that hardly 10 per cent. of the population remain who have no direct interest in agriculture.

2. Industry.

Industry.

The second heading extends to all persons supported by industry, 47,163 in number. It includes 6,274 persons supported by the weaving of cotton and 1,300 persons by the weaving of wool. A census of looms made at the same time as the census of the population showed that there were in work 3,659 looms for weaving cotton and 264 for weaving

Weaving.

wool. These looms are all hand looms of primitive design, the fly-shuttle only having made its appearance at the mission school at Mahuadanr. The wool weaving is done by the Gareri shepherd caste. The hand-woven cloth, which though coarse is durable, is mostly seen amongst the aboriginal and semi-aboriginal tribes in the tracts remote from the railway.

"Industries of dress" including tailors, shoe-makers, washermen and barbers, account for nearly 10,000 persons. Manufacturers of vegetable oils number approximately 5,000; carpenters, 1,900; and basket-makers 3,400; iron-workers 3,800; potters 4,200; workers of precious stones and metals 2,500. The iron-workers are mostly the ordinary village blacksmiths, but iron ore is found in the south where it used to be smelted by the Agarias. In 1827 29 furnaces were being worked in the pargana of Palamau. The following account* of this primitive and practically extinct method of smelting is reproduced as being of some antiquarian interest.

"The furnaces of the Agarias are generally erected under some old tamarind or other shady tree on the outskirts of a village or under sheds in a hamlet where only Agarias dwell, and which is situated in convenient proximity to the ore or to the jungle where the charcoal is prepared. The furnaces are built of mud, and are about 3 feet high, tapering from below upwards, from a diameter of rather more than 2 feet at base to 18 inches at top, with an internal diameter of about 6 inches, the hearth being somewhat wider. Supposing the Agaria and his family to have collected the charcoal and ore, the latter has to be prepared before being placed in the furnace. Three varieties of ore are recognized, viz. *bali*, i.e., magnitite, *biji*, i.e., maematites from coal measures, and *dherhur*, i.e., haematites from laterite. *Bali* is first broken up into small fragments by pounding, and is then reduced to a fine powder between a pair of mill-stones. The haematite (*biji* and *dherhur*) it is not usual to submit to any other preliminary treatment besides pounding.

Iron-smelting.

"A bed of charcoal having been placed in the hearth, the furnace is filled with charcoal and then fired. The draught is produced by the usual pair of kettle-drum-like bellows, which are worked by the feet, the heels of the operator acting as stoppers to the valves. The blast is conveyed to the furnace

* V. Ball, *Memoirs of the Geological Survey of India*, Vol. XV, Part I.

by a pair of bamboo twyers, and has to be kept up steadily without intermission for from six to eight hours. From time to time ore and fuel are sprinkled on the top of the fire, the proportions used not being measured, but probably the operators are guided by experience as to the quantities of each which produce the best results. From time to time the slag is tapped off by a hole pierced a few inches from the top of the hearth. Ten minutes before the conclusion of the process, the bellows are worked with extra vigour and the supply of ore and fuel from above is stopped. The clay luting of the hearth is then broken down, and the ball or *giri*, consisting of semi-molten iron slag and charcoal, is taken out and immediately hammered, by which a considerable portion of the included slag, which is still in a state of fusion, is squeezed out.

“ In some cases the Agarias continue the further process, until after various reheatings in open furnaces and hammerings, they produce clean iron fit for market; or even at times they work it up themselves into suitable utensils. Not unfrequently, however, the Agarias' work ceases with the production of the *giri*, which passes into the hands of the Lohars. Four annas is a common price paid for an ordinary sized *giri*, and as but two of these can be made in a very hard day's work of 15 hours' duration, and a considerable time has also to be spent on the preparation of ore and charcoal, the profits are small. The fact is that, although the actual price which the iron fetches in the market is high, the profits made by the *mahajans* and the immense disproportion between the time and labour expended and the outturn, both combine to leave the unfortunate Agaria in a miserable state of poverty.” The iron used to be made into axes, plough-shares, well-buckets, and other agricultural implements, and also into guns, which were sold according to the length of the barrel at Re. 1 a span: the best guns used to be made at Herhanj and Daltonganj, but this industry is now dead.

COAL-MINING.

When the census was taken, coal-mining supported rather under 400 persons. At that time the Rajhara colliery was closing down and work had not begun in the Hutar field, so that the industry was at its lowest ebb. It is however bound to develop for the coalfields of Palamau are extensive and the new railway will make them accessible. Some account of their geology will be found in chapter I.

The total area of the so-called Daltonganj coalfield is Daltonganj nearly 200 square miles, but the workable coal-bearing rocks coalfield. occupy a very much smaller area. There are one or two small open pits near the Amanat from which coal is cut and carted away for local use on payment of a small royalty per cart to the landholders; but the only important mine in the field has been the Rajhara colliery of the Bengal Coal Company, which was the company's first colliery and which has been open since 1847. In 1857 the works were attacked and destroyed by the rebels and systematic mining was not resumed till the railway reached the field in 1901. In the interval small quantities of coal had been extracted for use at the irrigation works at Dehri and for consumption in the neighbourhood. When the colliery was in full work in latter years the output rose to 86,000 tons in 1915, during which year an average labour force of 855 men, women, and children was employed. The colliery was eventually abandoned because the extraction of more coal could only have been effected at a disproportionate cost, and because the company were faced with the expenditure involved in developing the Hutar field, of an important area of which they had taken a lease. At the time of writing no coal, but only fireclay was being extracted at Rajhara, the number of persons so employed being between 50 and 100. Over 5,000 tons of fireclay were produced in 1923.

The Hutar coalfield, which extends over an area of Hutar coal- nearly 79 square miles, lies to the south of Daltonganj and field. west of the Auranga river and is traversed by the Koil flowing from south to north. Regarding the quantity and quality of the coal in this field Mr. Ball wrote as follows:—"The coal measure rocks of this area present many striking differences from those of the Auranga field. To this rule the coal is no exception, as will at once be apparent by a comparison of assays. From the Daltonganj coal that of Hutar differs in containing a notably smaller proportion (7.15 per cent.) of fixed carbon, and would, therefore, have a less heating power. The proportion of ash, 10.7 per cent., is the same in both. On the whole, however, the Hutar coal is quite equal to the average of Indian coals, so far as regards quality. Much uncertainty must attach to any estimate of quantity. Only three seams of good quality, containing a thickness which could be worked with profit, are known to exist. I do not at all despair of this field being found to contain workable

seams of value, but the facts at present available do not justify any confident expression of opinion that such will certainly prove to be the case." The railway is now being introduced into this field, and the Bengal Coal Company have taken a lease of 1,280 acres of coal-bearing land in the Government Estate. They also intend presently to develop an area further west in the Chainpur estate, of which they have taken a lease.

**Auranga
coalfield.**

The Auranga coalfield extends over an area of 97 square miles along the course of the river of the same name in the south-east of the district. It contains numerous coal seams, some of large size, and the total quantity of coal available has been estimated at 20 million tons, but the fuel is of indifferent quality. Mr. Ball wrote as follows :—

"The coal which occurs in the rocks of the Raniganj group is of too unimportant a character, whether as regards quality or thickness, to be considered as affecting the question of the amount economically available in this area. The improbability of this field containing a large supply of really good coal is very great. The appearance of the seams, and the result of the assays, both point to this conclusion. At the same time, it should be remembered that there is not a single fresh and clear section of the rocks and that the coal has never been quarried to the smallest extent."

**Karanpura
coalfield.**

In addition to the three coalfields mentioned, a small portion of the large Karanpura coalfield, of which the greater part falls in Hazaribagh, is situated in the south-east of the district at a distance of about six miles from the Auranga field. The coal is exposed here and there in the beds of the rivers, and small pits record desultory attempts at mining. The result of these efforts up to date has been little coal but much litigation.

**Other
minerals.**

Although no other minerals are worked on a commercial scale, limestone, sandstone and graphite are known to exist, and bauxite is found in the neighbourhood of Netarhat. Copper also has been found but not in sufficient quantity to enable it to be worked profitably.

Cement.

Another industry that has been started in the district since the last census is the manufacture of cement at Japla. The factory, which began work on November 1st, 1922, is the property of the Portland Cement Company. The limestone is brought across the Son by an aerial ropeway from the cliffs

where it is quarried in Shahabad. The staff consists of between 300 and 400 persons. The manager and other members of the superior staff are Europeans. Men from the surrounding villages have found employment in the works in large numbers, and the wages of labour and the cost of living in the neighbourhood have markedly increased since the works opened. The factory is capable of producing 1,000 tons of cement a week.

3. Commerce.

This head with a total of 30,063 includes transport as well COMMERCE. as commerce, and under that group come 4,600 persons engaged in transport by road. Other numerous groups under this head are banking and money-lending, 3,900; miscellaneous trade, 3,400; and dealers in foodstuffs, 12,600. There is no commerce on the grand scale in this district. The head includes the usual village money-lenders and the usual petty retailers of food and the other necessities of life who are found in every district.

The principal exports of the district, apart from coal and cement which do not affect the general population, are lac, oilseeds, *ghi*, hides and catechu; while the principal imports are piece goods, rice and *rabi* seeds, salt, brass-ware, sugar, tobacco, kerosene oil, and cotton twist. The amount of rice imported annually is estimated to be about one lakh of maunds, and the amount of other food-grains rather less. The exports are despatched chiefly from Daltonganj and Garhwa Road stations, the latter being the more important because the exports from Sirguja are entrained there. The imports are largely distributed from the same stations, the supplies from Garhwa Road going to the west of the district and Sirguja, and those from Daltonganj going to the south and east of the district. A considerable trade is however carried on with pack bullocks and ponies which does not reach the railway at all. Strings of these pack animals go down into Sirguja or through Chhechhari into Jashpur and the Barwe valley in Ranchi district and return laden with foodgrains which they take up the west bank of the Koil to Ranka, or to Daltonganj, or across the Ranchi road into the west of Hazaribagh, which is also supplied in the same way from the Lohardaga side through Bahmath. The whole of the traffic between Palamau and the Chatra subdivision of Hazaribagh is at present carried on in this manner, and so is much of the traffic between Palamau and Shahabad and the Aurangabad subdivision of Gaya.

Markets.

Owing to the recent construction of a bazar at Bohla in Sirguja, whence goods are conveyed direct to and from the railway, and to the chief of that state forbidding his people to have dealings at any other market, all the bazars on the south-west boundary of the district from Dhurki to Mahuadanr, and in particular Garhwa, have suffered a set-back. The principal business centre of the district is now Daltonganj, where the revenue of the market is made over by Government to the municipality, and after that Garhwa. Other important places of business are Husainabad, Hariharganj, Panki, Satbarwa, Latehar, Shahpur, Chainpur and Untari. Markets are held weekly all over the district at the villages and on the days given in Table V at the end of this volume. A good deal of trade is also done at the annual fairs, to which the cultivators flock from the neighbouring villages and purchase cattle, brass utensils, clothes, etc. Such fairs, which usually last for about ten days, are held at the following places:—Balumath (November), Herhanj (January) and Balubhang (April), in Balumath police-station; Chakla (January) and Haraya (March), in Chandwa police-station; Satbarwa (April) and Chando (October), in Daltonganj police-station; Panki (March), in Panki police-station; Nagar Untari (March), in Untari police-station; Kosiara (March), in Husainabad police-station; Ketar (March), in Bhaunathpur police-station; Latehar (March), Karid (January), and Mankheri (November), in Latehar police-station; Nawadih (December), in Kerh police-station; Anksi (January) and Parhatoli (January), in Mahuadanr police-station.

Fairs.

4. Professions.

Professions.

Under this head, which has a total of only 4,265, come religion, 2,300; law, 450; medicine, 250; instruction, 550; and arts and sciences, 700. Daltonganj is practically the only centre for the *intelligentsia*.

5. Other occupations.

Other

occupations.

This head includes a miscellany of employments not included under the other heads, with a total of workers and dependants amounting to 126,927 in all. The most numerous group is that of "labourers and workmen otherwise unspecified", 98,600: this includes that large body of "coolies" who work sometimes in the fields and sometimes at other miscellaneous jobs such as the repair of roads or the carrying of burdens. Other numerous groups are raisers of farm stock, 9,000; domestic servants 7,000; beggars, 2,300; fishermen, 1,800; and police, 1,800.

An interesting, though not a numerous, group under this head are the catechu collectors. Catechu or cutch is the astringent resin extracted from the *khair* (*Acacia catechu*) tree. The manufacture of this drug is carried on by Mallahs, who come annually from Gaya and other districts for the purpose. The first thing they do is to choose a suitable site for an encampment in a locality where the trees are plentiful and where water is to be had. As soon as a central spot has been selected the whole party set vigorously to work to erect a sufficient number of huts for the shelter of each family. The worksheds are then erected, and furnaces prepared by digging circular holes about 2 feet in diameter and 4 feet in depth, with a flue sloping down from above. The men are now daily in the forest engaged in cutting down the trees and lopping off the branches, after which the trees are taken to the encampment in lengths of 10 to 12 feet. As soon as the supply begins to come in, the women bark the trees and chop off the outer white wood, leaving the inner wood only. The heart of the tree, which is of a dirty red colour and full of sap, is then cut up into small chips which are packed in large earthen jars called *chattis*. The latter are placed over the furnace or oven and their contents boiled from 12 to 16 hours. The juice (*ras* or *arak*) which boils over is poured into another jar, replaced on the furnace, and stirred till it attains the consistency of syrup. It is then poured off into a circular earthen vessel, and allowed to settle for a night, and next morning is strained through a large basket; the liquid portion thus strained off is poured into a ditch dug close by, and is made into second class cutch, called *khaira*. First class cutch, called *pakhra*, is made from the thick residue left which remains in the basket for about a month, during which it further thickens according to the temperature and the weather. The mass is next poured in a layer on the ground over ash, upon which it is kept for eight or ten days, during which it hardens. It is then cut up with a knife into squares, in which shape it is sold to the trader. Cutch can only be made during the cold weather. It fails to harden on hot days, and Mallahs therefore close work before the end of March. They believe that, unless they keep perfectly pure and clean during the whole time, the cutch will be spoiled. They pay royalty to the zamindars according to the number of *chattis* they keep in use. The amount of cutch exported from Daltonganj has recently increased from 1,500 maunds in 1922 to over 3,000 maunds in 1924.

Lac
cultivation.

More important is the cultivation of lac, which is widely spread in the district and which, because it is pursued by cultivators at certain seasons of the year as a subsidiary occupation and often on a small scale, almost escapes recognition in the census tables. At the special census of lac growers, mentioned in the last chapter, it was ascertained that there were over 41,000 persons in the district cultivating lac on trees of the numbers and kinds given in the margin. In

Trees on which lac is cultivated.			
Kind.			Number.
<i>Palas</i>	...	...	1,701,010
<i>Bair</i>	...	...	30,116
<i>Kusum</i>	...	...	4,176
<i>Pipal, Bur, Gular and Pakur</i>	...	...	1,064
Other trees	...	...	2,484
Total			1,738,850

the last chapter facts were given to illustrate the rents which the cultivators of lac have to pay for their trees. By far the greater part of the lac crop of the district is raised on *palas* trees. The principal crop of *palas* lac is obtained in April and May, the Bai-sakhi crop; but some of the lac is then left on the trees until October or

November when it swarms again and is cut and sold as brood lac; this is the Kartiki crop. The *kusum* lac is more valuable, but less extensively cultivated. The principal *kusum* crop is in October and November.

Lac is a resinous incrustation found on the twigs of certain trees, which is produced round the bodies of colonies of the lac insect. The latter subsists on the sap that it sucks up by means of a proboscis from the succulent tissues of the tree. When the young insects escape from the dead body of the female, they crawl about in search of fresh sappy twigs; this is the swarming and at this time the twigs of trees infected with the lac insect will often be seen to assume a reddish colour, owing to the countless masses of minute insects that are moving all over them. Those that become fixed drop their legs and at once proceed in the process of digestion to transform the sap sucked up by the proboscis and to exude from their bodies the resinous matter with which they become ultimately incrustated. At this stage when it is evident that the swarming is beginning, the twigs of an old tree with the insects on them are cut off and tied on a fresh tree, which it is proposed to bring under cultivation, at the base of the

new shoots which have grown [as the result of previous pollarding. After a time the insect crawls up the branches of the fresh trees, and, piercing the bark at some place sufficiently soft, fixes itself down and commences to exude lac. The greater and the better part of the lac is exuded by the female after mating. The quality of the lac depends upon the brightness of the colour, the thickness of the incrustation, and the freedom from parasites. The cultivator lops off the twigs on which lac has formed with an axe and then separates the lac from the twigs with a sickle.

Stick lac is collected from the cultivators by petty middlemen, who often obtain it by exchange for the commodities which they bring with them, but cash more frequently enters into transactions nowadays than formerly. In either case they make a handsome profit. These men or the cultivators themselves take it to the *hats* where it is repurchased by another set of middlemen who take it to the factories or the godowns of the big exporting firms. This latter class of middlemen usually work on a commission basis. All the stick lac produced in the district used to be exported in its raw state, but in recent years twelve lac factories have been opened in the district—six near Daltonganj and six near Garhwa for converting the stick lac into shellac. These factories belong to Mirzapuris and Marwaris. About 72,000 maunds of stick lac and about 12,000 maunds of shellac are exported annually from the district by rail.

The raising of cocoons for silk used to be an important industry in the district, but it is now practically dead. The revenue from *koa* (silk) used to be a by no means negligible part of the revenue derived by the Chero Rajas from Palamau, and theoretically Government held a monopoly of the cultivation of this commodity and of *kath* (catechu) throughout the *pargana* of Palamau down to the year 1851, when they relinquished their claims in respect of villages not held *khas*. The contract for cultivating silk in the Government Estate is now suctioned annually, but the proceeds are, as stated in chapter VIII, negligible. Silk raising.

CHAPTER X.

MEANS OF COMMUNICATION.

DEVELOP-
MENT
OF COMMUNI-
CATIONS.

In 1880 a writer describing Palamau prefaced a section on " Roads and Carriage " with the following remarks:—

" This section might almost be written in the words, *mutatis mutandis*, of Aldrovandius' famous chapter concerning the owls of Iceland. Of *pucka* bridged roads there is not a single example. The few roads that do exist are little better than mere fair-weather tracks. Of these the principal are from Daltonganj to Ranchi, and from the same place to Dehri-on-Son. But few of the others are practicable for carts, and the remainder can only be used by pack-cattle and elephants."* Even as late as 1897 the Deputy Commissioner reported that " Palamau has neither railway nor reliable water communications, and all her roads are third class ones, i.e., *kachha* and unbridged ones. Her mode of transport of goods is by cart and by pack-bullocks. In the summer months (April, May, and June), transport is very difficult owing to the want of fodder and water for cattle, and during the rains it is rendered almost impossible owing to the heavy condition of the roads and the flooded state of the numerous rivers and streams which intersect the roads frequently. Daltonganj is over 100 miles from Gaya, the nearest railway station; in dry weather it takes 8 to 10 days, and in the rainy season 12 to 20 days for a cart to do the journey ". During the severe famine that occurred in that year, the difficulty of transport proved insurmountable, both road-routes and river-routes failing, and Palamau was cut off from supplies. " The fact is ", the same officer said, " that Palamau is probably the most isolated district in the whole province of Bengal,—a district which in a time of scarcity may

* V. Ball, *Geology of the Auranga and Hutar Coalfields*, Memoirs of the Geological Survey of India, Vol. XV.

not inaptly be compared, in the words of the late Sir George Campbell, to a ship at sea running short of provisions". This isolation was not effectively broken down till the construction of the Barun-Daltonganj railway which was opened as far as Rajhara in May 1902, and was extended to Daltonganj by the close of the year, thus connecting Palamau with the railway system of India.

The first road made by Government was laid down in Roads. 1863, when the American Civil War had created a keen demand for cotton for explosives and it was desired to provide an outlet for the cotton grown in Palamau and Sirguja. The so-called "Bihar Cotton Road" was intended to join the recently founded town of Daltonganj with the Grand Trunk Road *via* Sherghati, a distance of 70 miles. But the road was never completed; for years it ended in the jungle on the border of the district and with the construction of the railway it fell more or less into disuse. It is described below as the Daltonganj-Manatu road. Since then there has been much extension of roads in the district. The district board now maintains 25 miles of metalled, 500 miles of unmetalled, and 47 miles of village roads.

The most important roads radiate from Daltonganj and Principal Garhwa, as is shown in the map which accompanies this roads. volume. The Koil below the town of Daltonganj is 600 yards wide and unbridged, so that the primary obstacle to communications with the west of the district is not far to seek. The principal roads are as follows :—

1. *The Daltonganj-Ranchi road*, of which 65 miles lie in Palamau, is a provincial road looked after by the district board. The road is gravelled and fully bridged, but is apt to become very heavy during the rains. It strikes south-east from Daltonganj and passes through the important villages of Satbarwa, Mankah, Latehar, and Chandwa.

2. *The Untari-Garhwa-Garhwa Road Station road*, which starts from the Mirzapur border on the west and is continued beyond the Koil to Bistrampur on the east, is bridged throughout and gravelled in parts, but it is apt to be badly cut up in the rainy season. Communications between the south and east of Mirzapur district and the outside world are maintained along this road when the Son is impassable in Mirzapur, and most of the trade of Sirguja converges upon it at Garhwa.

It is at present more used than any other road in the district, but it will be relieved of a good deal of its traffic by the coalfields railway. The distance from the Mirzapur border to Bistrampur is $33\frac{1}{2}$ miles. The six miles from Garhwa to the Koil which are used by the traffic of both Mirzapur and Sirguja are metalled.

3. *The Daltonganj-Garhwa road*, which connects these two trade centres, is 21 miles long. It crosses a series of unbridged rivers of which the most important are the Koil and the Danro, and cannot therefore be used during the rainy season.

4. *The Daltonganj-Hariharganj road*, $43\frac{1}{2}$ miles long, runs north from Daltonganj, crossing the Amanat and several other unbridged rivers, and can therefore only be used at certain times of the year. The road continues to Aurangabad in Gaya district, but that part of it is not good. This road is the only link at present between the road systems of Palamau and Gaya. It lost much of its importance when the railway was built and is at present very little used except by bullock carts on their way to Palmerganj station on the East Indian Railway.

5. *The Daltonganj-Manatu road* is bridged as far as Lesliganj, close to which it passes; beyond that it crosses a number of unbridged rivers, of which the most formidable is the Amanat. This is the old 'Bihar Cotton Road' already mentioned. It is maintained as far east as Manatu and the portion between the Amanat and Manatu has recently been much improved; but beyond Manatu little remains but a few broken culverts.

6. *The Lesliganj-Panki road* turns off from the road last mentioned close to Lesliganj and continues south of the Amanat to Panki. Just beyond Panki it crosses the river before reaching the Hazaribagh border. Nominally this is a through route to Hazaribagh, but it is hardly used as such by wheeled traffic.

7. *The Garhwa-Ranka-Sirguja border road*, which runs due south from Garhwa, is bridged as far as Ranka. This road has recently been much cut up by traffic from Bohla bazaar in Sirguja which has made it at times almost impassable.

8. *The Husainabad-Chhattarpur road* connects Japla Railway Station with Chhattarpur on the Hariharganj road (no. 4). It is bridged and, owing to its not being much used by bullock carts, the surface is fairly good.

9. *The Chandwa-Balumath road* runs due north from Chandwa on the Ranchi road (no. 1), to Balumath police-station. It is little used by wheeled traffic, but pack bullocks and ponies can pass along it to Chatra in Hazaribagh district.

10. *The Kerh-Garu road* turns south from the Ranchi road in the 7th mile, crosses the Auranga by a wooden trestle bridge, and so reaches Kerh and Garu police-stations. The new railway will probably lead to a considerable development and modification of the roads in this area. At present a rough road leads east from Garu, across the angle in the course of the Koil, to Rud and Marwai at the foot of Netarhat. Another road goes south-west from Garu to Baresanr and Mahuadanr; but Mahuadanr is also accessible by a forest road which turns west from the Kerh-Garu road at Mundu and then south at Lat; this latter route avoids the difficult country between Garu and Baresanr.

In the interior much still remains to be done before the district is adequately provided with roads. Partly owing to the nature of the country which is broken with hills and streams that make road-making very expensive, and partly owing to the restricted resources of the district board, the development has been slow. The principal hindrances to the creation of a satisfactory road system have been the unbridged rivers Koil and Amanat which cannot be crossed by wheeled traffic during the rains. As carts cannot move where there are no roads, much of the transport is still effected by coolies or pack-bullocks or ponies along the tracks that wind from village to village. Such carts as there are come mostly from Bihar and particularly from Arrah: at the time of settlement it was found that there were only 682 carts belonging to the district, as compared with the 55,000 found in Hazaribagh. Communications are specially rudimentary in the south. At the time of writing (1925) there is not a single road south of the Ranchi road, except that to Kerh, which is passable by wheeled traffic at all times of the year.

In the absence of bridges the rivers are crossed on foot Ferries. when the state of the stream permits of it. During the rains ferries ply across the Koil at Daltonganj, at Rehla

opposite Garhwa Road station, at Sirhe opposite Untari Road station, and at Muhammadganj. Across the Amanat they ply at Singra on the road to Patan, and sometimes at Tarhasi on the road to Manatu. Across the Son there are in all 11 ferries which are leased by the Palamau district board to a single contractor; these ferries are at Dingwar, Deorhi, Ranideva, Sunripura, Sonpura, Hariharpur, Kadhwan, Budhua, Parti, Khokha and Gara.

Communica-
tion
by water.

Communication by water is of little importance. The Son can be navigated in country boats during and after the rains when conditions are favourable. The Koil can also be negotiated in shallow boats as far up as Daltonganj in similar conditions. The most important use to which the rivers are put in this way is for floating thousands of bamboos out of the Government forests down the Koil in rafts from Kechki to Japla and beyond.

Railways.

The construction of the Barun (Son East Bank)-Daltonganj railway in 1902, whereby Palamau was brought into connection with the railway system of India, has already been mentioned. The stations on this line which fall within the district boundary are, from north to south, Husainabad, Haidarnagar, Muhammadganj, Untari Road, Garhwa Road, Rajhara, and Daltonganj. Another line of railway has since been surveyed and is now (1925) being constructed which will traverse the coalfields of Hazaribagh, Palamau and Sirguja: this line will cross the district from east to west, from a point near Chandwa police-station through Kerh to a point near Bhandaria police-station and so on into Sirguja. At the time of writing sanction has been received only for the eastern section of it. The existing Daltonganj line will be extended to meet it at Barwadih, and a station will be constructed at Kechki between Daltonganj and Barwadih junction. The stations on the coalfields railway from Barwadih to the east will be Chipadohar, Kumandih, Latehar, Richughuta, Tori, and Mahua Milan. The total length of railway line in the district when these lines are completed will be 160 miles, viz., 55 miles from the district boundary to Daltonganj on the Son East Bank line, 16 miles from Daltonganj to Barwadih Junction, and 58 and 31 miles to east and west respectively of Barwadih on the coalfields line.

Motor
services.

Four services of motor omnibuses now ply in the district, one along the Daltonganj-Ranchi road from Daltonganj to Lohardaga by Kuru (change at Kuru for Ranchi) one from the

west bank of the Koil opposite Garhwa Road station through Garhwa to Nagar Untari and Munriseemar one from Daltonganj to Lesliganj, and one from Husainabad to Chhattarpur. With the exception of that to Lohardaga, these services are suspended during the rains when the roads become impassable for motor traffic.

At Daltonganj there is a head office of the Postal Department. At Garhwa, Japla, and Latehar there are sub-offices, and in addition there are 27 branch offices. During 1922-23 there were 38,095 money orders of a total value of Rs. 10,29,250 issued from these offices against 16,229 money orders of a total value of Rs. 4,60,674 paid out, indicating that the profits of a good deal of the business done in Palamau are taken by outsiders. The number of savings-bank accounts is small, being just over 1,000 with a total value of just over Rs. 1 lakh. Post offices.

There are only three telegraph offices in the district, at Daltonganj, Garhwa, and Japla; but a third will shortly be opened at Latehar. Telegraph offices.

CHAPTER XI.

LAND REVENUE ADMINISTRATION.

THE
PARGANAS,
TAPPAS, AND
REVENUE
THANAS.

THE district is divided into four *parganas* or fiscal divisions, viz. Palamau, Belaunja, Japla, and Tori, each of which has a separate revenue history and a separate system of land tenure. The *parganas* are further divided into *tappas*, of which there are over 30 in Palamau, 5 (Paranra, Pahari, Dema, Rampur, and Khaira) in Belaunja, 2 (Mahul Mahal and Mathur Mahal) in Japla, and none in Tori. A map showing all the *parganas* and *tappas* will be found in the Settlement Report. This old division into *parganas* and *tappas* is of little practical importance nowadays, but the history of the Land Revenue Administration of the district naturally arranges itself on this basis. Nowadays the division of the district into *thanas* is the usual basis of administration: the district includes nine revenue *thanas* arranged in two subdivisions as follows:—

Subdivision.	Revenue thana.
Sadr	Daltonganj. Garhwa. Ranka. Chhattarpur. Patan. Husainabad.
Latehar	Balumath. Latehar. Mahuadanr.

The nine revenue *thanas* are further subdivided into the 20 police-stations shown in Table I at the end of this book. The relation between the *thanawar* and *parganawar* division of the district is as follows. Balumath revenue *thana* corresponds with Tori Pargana. Husainabad revenue *thana* includes Japla and Belaunja Parganas: this *thana* is divided into two parts, east and west, by the Koil, of which the

north of the eastern part is Japla Pargana, and the rest, i.e., the whole of the western part and the south of the eastern part (Khaira Tappa) is Belaunja Pargana. The other seven revenue *thanas* are included in Palamau Pargana.

The *pargana* of Palamau comprises the territory formerly ^{Pargana} held by the Chero chiefs. In the 18th century an annual ^{Palamau.} tribute of Rs. 5,000 was payable in respect of it to the Mughal representative. After the capture of Palamau fort by the British in 1771, Gopal Rai was made Raja of Palamau, though with the status of an ordinary *zamindar*, and a revenue of Rs. 12,000 a year, was settled for three years. In 1773 a further settlement for five years was made with Gopal Rai, with whom were associated two of his relatives, by which he engaged himself to pay Rs. 6,000 in the first year, Rs. 8,000 in the second, and Rs. 12,000 for the remaining three years, making a total sum of Rs. 50,000. In 1776 Gopal Rai was deposed. In 1786 Mr. Leslie, the Collector of Ramgarh, made a settlement with Thakurai Shiva Prashad Singh on behalf of the minor Raja Churaman Rai, by which the Thakurai bound himself to satisfy the cultivators, to maintain the right of the *jagirdars*, and to do various other things conducive to the good government of the *pargana*. A further similar settlement was made for ten years in 1789, by which the revenue payable to Government by the Raja was fixed at Rs. 12,182 and to which was appended a list of the old *jagirdars* and the amounts payable by them to the Raja. By the terms of this settlement the Raja had to maintain the local police, the cost of which amounted to about Rs. 3,000 a year. The Government revenue was paid by assigning to it the rents of certain villages and tenures which were collected on its behalf by a *sazawal*, until the system came to an end in 1800. Churaman Rai, who had assumed personal charge of his estate in 1793, had meanwhile fallen into financial difficulties, and the revenue rapidly fell into arrears. An Assistant Collector was appointed to assist in its realization, and in 1812 he claimed to have re-established the settlement of Mr. Leslie by annulling *sanads* subsequently granted by the Raja which were inconsistent with it. What exactly resulted from this action is not clear, but things got to such a pass that the *pargana* was put up to sale for arrears of revenue in 1814 and bought in by Government for Rs. 51,000. Two years later, in 1816, it was settled with Ghansham Singh, Raja of Deo in Gaya

district, on a reduced revenue of Rs. 9,000 a year with the stipulation that the rights of the old *jagirdars* should be maintained according to the decennial settlement of 1789. But this arrangement failed to give satisfaction, and in 1819 Government brought the estate under direct management and has so retained it since then, for rather more than a hundred years.

THE
GOVERNMENT
ESTATE.

The *khalsa* villages, i.e., the villages under direct management, which now constitute the Government Estate or Khas Mahal, were settled on annual leases with *thikedars*, and by them in some cases with *katkanadars*. In 1824 these villages, 150 in number, were again settled with *thikedars* for five years on a total annual rental of Rs. 11,629. In 1830 a further settlement of them was made for two years for Rs. 10,798, and this arrangement lasted till 1835, when they were settled for another five years for Rs. 8,906. Various villages were added to the *khalsa* lands after the disturbances of 1831-32 and further additions were made by resumption in 1835-36. In 1839, Dr. Davidson arranged for a settlement of the *khalsa* villages with *thikedars* for 20 years; the settlement was made by auction and the total of the rents stipulated by the *thikedars* amounted to Rs. 10,367-2-0 rising to Rs. 12,333-12-0. In 1859-60, after the expiration of Dr. Davidson's settlement, Mr. Campbell made a summary settlement with *thikedars* for three years of the *khalsa* villages, the number of which had again been increased by confiscations after the Mutiny of 1857, on a total rental of Rs. 22,293-3-2.

Mr. Forbes'
settlement.

By this time it was realized that the well-being of the cultivators of the villages was sacrificed by the system of settlements with *thikedars*, which contained no stipulation with regard to the rents payable by the tenants. In 1864, therefore, the first *raiayatwari* settlement of the Government Estate was taken in hand, which was completed in 1870 by Mr. L. R. Forbes. The *thikedars* were not abolished, but the rents payable to them by the tenants were definitely fixed. The permanent cultivation of each village was divided into *parias* of about three bighas each. Riceland and upland were both classified as 1st, 2nd, and 3rd class, and the cultivation of a *paria* or portion thereof of permanent cultivation carried with it the right to a corresponding share of fluctuating cultivation: within the limit of fluctuating

cultivation so assigned the cultivator could change his uplands without charge. Actually this system was not given a fair trial, for in 1872 Mr. Forbes stated that there was scarcely a village in which the old system had not been restored, and the annual measurement and assessment required by the new system abandoned. The total rent roll according to this settlement amounted to Rs. 40,843, of which Rs. 4,413 went to the *thikedars* by way of commission: during the term of the settlement this total increased to Rs. 57,693. The reserve forest was originally constituted at this settlement.

In 1896 was concluded Mr. Sunder's settlement. On this occasion *thikedars* were abolished; the rent was assessed not on the *paria* but on the field; and it was decided that the cultivators should pay excess rent for any new upland cultivated by them without any remission on account of lands abandoned. The rent roll rose on this occasion to Rs. 74,433. The increase was justified by an alleged increase in the area cultivated since Mr. Forbes' settlement, but it is doubtful if this allegation can be substantiated. In any case, events proved that the new settlement pressed hardly on the cultivators; holdings were freely abandoned and certificates for arrears of rent issued in their thousands, till Government allowed considerable remissions and permitted the increase of rents to be made progressively with retrospective effect. In 1894, during the progress of this settlement, was issued the notification constituting the protected forest on the principles explained in chapter V.

At the recent settlement that was concluded in 1920, after much discussion, it was decided that fair rents should be settled in the Government Estate at the standard of $12\frac{1}{2}$ per cent. or one-eighth of the value of the gross produce of the lands, with a maximum of $15\frac{5}{8}$ and a minimum of $5\frac{3}{8}$ per cent. provided that, except in the case of large and recent extensions of area, no rent should be enhanced to a figure exceeding 50 per cent. of the finally published rent. The effect of these orders was that the total rent roll was reduced by Rs. 6,495 or 7 per cent. below the figure to which it had risen during the period of Mr. Sunder's settlement, though it exceeded by $5\frac{1}{2}$ per cent. the sum fixed by Mr. Sunder in 1896.

In addition to the rent of the land, considerable sums are derived from the rent of lac-bearing and *mahua* trees. Rent of trees.

standing outside the tenants' holdings as explained in chapter VIII.

The estate now extends to 357 square miles and includes 382 villages. There is a string of Government villages from Daltonganj to Garhwa, but most of the villages are in the south of the district or towards Lesliganj. The current demand of rent and cess is Rs. 85,000 and miscellaneous Rs. 55,000 a year. The staff maintained for the administration of the estate consists of a Khas Mahal Deputy Collector, four *tahsildars*—one for each of the Daltonganj, Lesliganj, Garu, and Latehar circles, and each with a *muharrir*—an irrigation expert, a forester, 7 forest guards, 21 peons, and a staff of 5 clerks at Daltonganj. In each village there is a *mahto* or headman, who has been given various responsibilities, such as the reporting of excess cultivation and of vacant holdings, and who is generally consulted with regard to his village.

The
jagirdars.

Here it is necessary to revert to the year 1819 when Government resumed the *pargana* of Palamau from Ghansham Singh. While the Cheros were still Rajas of Palamau they created a number of subordinate estates in the shape of *jagirs*, *ijaras*, and *khorphosh* or maintenance grants. A large part of the *pargana* was alienated by the creation of such tenures at quit rents and of *minhai* grants free of all rent, the latter mostly to Brahmans. The majority date back to the time when the Chero chiefs were continually engaged in feuds and petty wars among themselves. The necessity of keeping a sufficient number of adherents in a constant state of readiness to defend themselves against sudden attack and also to make reprisals upon their neighbours, gave rise to the custom of bestowing lands in *jagir* or fief. These *jagirdars* obtained *sanads* from the Rajas for the grant of lands under an engagement of vassalage, or in other words of being at all times ready to assist the Raja with a certain number of armed followers whom they maintained upon their *jagirs*. Besides these military grants, there were *khorphoshdari* grants made to relatives for their maintenance, grants for services of a civil or political character, grants in lieu of official salaries, grants for charitable purposes and the like. The *jagirs* included (1) service *jagirs* or grants made by the rulers of Palamau for services rendered, whether civil, military, or political; (2) *jagir kanungo* and *jagir kazi* or grants made in virtue of the office of *kanungo* or *kazi* and in

lieu of an official salary; (3) *jagir babuan* or grants made by the chiefs to their relatives, for whose maintenance the proceeds of the land were intended; (4) *jagir cheroan* and *jagir kharwar* or lands assigned in return for military services to members of the Chero and Kharwar tribes, the old fighting clans of Palamau; (5) *jagir inami* or grants made in reward for services rendered during the rebellion of 1802; (6) *jagir mutfarka* or miscellaneous grants, the main provision of which was the payment of a fixed quit rent; (7) modern *jagirs*, also called *jagir inami*, granted by the British Government in recognition of loyal services rendered during the Bhogta rebellion and the Mutiny.

The *ijara* tenures have been classified as (1) simple ^{The} *ijaras* or ordinary leases, i.e., tenures held under no definite *ijaradars*. terms or conditions except the payment of a fixed rent, some being leases for a specific term of years and others leases without limitation of time; (2) *ijara baipatta* or lands purchased outright by the occupants; (3) *ijara khairat* or charitable grants; (4) *ijara jagir* and *ijara inami* or grants given in reward for miscellaneous services; (5) *ijara jama brit* or grants made in consideration of an advance of money, subject to the payment of some nominal rent; and (6) *ijara mukarrari* or grants which have descended from father to son for many generations without any variation of the *jama* or rent.

The holders of these feudal estates were an important class of the community, and it was largely the skill with which Thakurai Shiva Prashad Singh, himself a *jagirdar*, had played into their hands during the period of his management that led to the final collapse of the Chero Raj. When the *pargana* was put up to sale and bought in by Government in 1819, Government did not resume these tenures but declared that they would be maintained on an equitable *jama*. The status of the *jagirdars* and *ijaradars* and the amount of their rent was for many years a source of constant difficulty. In the decennial settlement of 1789, Mr. Leslie had given a list of the ancient *jagirdars* and their rents, and the list was often appealed to on subsequent occasions as authoritative. But what with alienations, inheritance—in some cases by the eldest son, in others not—encroachments, and intended resumptions, it was impossible to find a final answer in Mr. Leslie's list to the numerous questions raised.

The orders of 1895. The matter was not set at rest till orders were passed in 1895 that (1) whatever might have been the origin of the various classes of *jagirs* and *ijaras*, there was no longer any necessity for maintaining any distinction between them, because in practice they had for a long series of years been virtually recognized as both heritable and permanent; (2) that the transferability of all such tenures should be recognized, the right of Government to resume on the failure of male heirs of the original grantees being abandoned once for all without any payment of compensation, and that all transferees should be admitted to registration; (3) that the tenures, both *jagirs* and *ijaras*, should thenceforth be raised to the position of revenue-paying estates, that the sale law should be applied to them so as to facilitate the collection of Government revenue, and that the joint responsibility of all the holders of a tenure for the payment of the Government dues should be maintained. This may be regarded as the permanent settlement of Palamau. At about the same time the *minhai* or rent-free tenures were entered in the general register of revenue-free lands.

Present-day
tenures.

Beneath the *jagirs* and *ijaras* of Palamau *pargana* which were elevated into permanent, heritable, transferable, and non-resumable estates by the orders of 1895, were other sub-tenures, created in the same manner and with the same motives, which by those same orders became tenures of the first degree. Such tenures, which are found in all four *parganās*, may be classified under the following heads:—

1. *Jagir* tenures were originally granted for services which are for the most part no longer either demanded or performed. They are generally on a fixed rent and heritable, but resumable on failure of male heirs.

2. *Khorposh* tenures are granted for the maintenance of members of the proprietor's family. Where estates are governed by the law of primogeniture, such grants are made to younger sons and are only resumable on the failure of male heirs. Grants made to females are generally for their lifetime. Concubines and illegitimate children are also provided for in this way.

3. *Khairat* tenures are made for charitable purposes and include the grant of land to Brahmans and to idols. Such

grants are as a rule permanent, non-resumable, partible, and transferable. They are often of small extent.

4. *Mukarrari* tenures are most numerous and important under the Sonpura estate. They are as a rule non-resumable, partible, heritable, and alienable. In *Tori pargana* a few such tenures are resumable.

Before dealing with the three *parganas* other than *Untari* ^{estate.} *Palamau*, allusion should be made to the revenue-free estate of the *Bhaiya Sahib* of *Untari*. This family is a branch of the Sonpura family of *Surajbansi Rajputs*, and legend says that the *Untari* property was given to the elder son of the 44th Raja of Sonpura who lost his opportunity of succeeding to Sonpura through being absent on a pilgrimage when his father died. This estate appears always to have been distinct from the *Palamau Raj*, though it is included, except for *Rampur tappa*, in the *Palamau pargana*, and to have been assigned originally by the *Mughals* as a kind of *ghatwali* tenure for the protection of this frontier of *Bihar*. The estate still pays no revenue, but the proprietor pays a fixed sum for the maintenance of the local police.

The other three *parganas* are less extensive. *Belaunja Pargana* ^{Belaunja} consists of the five *tappas* of *Paranra*, *Pahari*, *Dema*, *Khaira*, and *Rampur*, the first four of which form the estate of the Sonpura family of *Surajbansi Rajputs* which held the *parganas* of *Japla* and *Belaunja* on the east bank and also some land in *Shahabad* on the west bank of the *Son* in the 18th century. The *Mughal Government* styled the *Rajas* the sole zamindars of this tract, which appears to have formed a revenue-paying estate assessed at Rs. 2,459. For some act of disloyalty apparently the old Hindu Raja was dispossessed, and the two *parganas* of *Belaunja* and *Japla* were confiscated and created into an *altamgha* estate by the Emperor *Muhammad Shah* in favour of the ancestor of the *Nawabi* family of the latter *pargana*. The *Rajas* fought every inch of the ground to keep their estate, and eventually the *British Government* intervened. In 1804 the *Nawabs* were compelled to give a lease of the four *tappas* to the Sonpura Raja for a term of years: but when the lease was due to be renewed in 1813, the quarrel broke out afresh and it was only composed finally by Government in 1816 when the *pargana* was permanently settled with the Sonpura family. *Belaunja* and

Japla *parganas* were transferred to the subdivision, as it then was, of Palamau in 1871.

Pargana
Japla.

Pargana Japla formerly belonged together with Pargana Belaunja to the Rajas of Sonpura, but was granted by Muhammad Shah as an imperial *altamgha* grant to Amat-ul-Zohra Begam, wife of Nawab Hedayet Ali Khan and mother of Ghulam Husain Khan, the author of the *Sair-ul-Mutakharin*. The Rajas did not submit quietly to this summary ejectment, and it was only after a long and protracted struggle that the Nawabs succeeded in securing possession of Japla, of which their possession was eventually confirmed by the British Government. The Nawabi family has now lost almost the whole of it, and the greater part is held by aliens. As Japla formed a Muhammadan estate, there are no extensive Hindu rent-free tenures, though there are many petty rent-free holdings granted by Rajput landlords. The chief rent-free tenures are those granted by the Nawabs for the guardianship of mosques and ceremonies, or for particular shrines, or as charitable bequests. The *pargana* having originally been given as an *altamgha* grant, no revenue is paid in respect of it.

Pargana
Tori.

Pargana Tori extends over 666 square miles in the south-east corner of the district and is conterminous with Balumath revenue *thana*. The original Rajas of Tori were declared by order of the Patna Council to be *jagirdars* of the Maharaja of Chota Nagpur and to be liable to pay him an annual sum of Rs. 2,007. In 1804 the then Raja, Durgijoy Sahi, died and the estate was resumed by the Maharaja after litigation with the widow, the Chakla estate being left to the family of the strongest male claimant. The Maharaja had at the same time to pay up considerable arrears of revenue to save the estate from sale. Local agitation resulted from his attempt to resume all the under-tenures created by the Tori Rajas, but his attempt was withstood by the local officers. In 1866 the estate was granted as a *khorphosh* by the Maharaja to his half-brother, Kumar Jagat Mohan Nath Sahi Deo. When the district of Palamau was formed in 1892, Tori was included in it, but it still pays revenue as part of the Chota Nagpur estate in Ranchi district.

Extension of
Government
intervention.

The foregoing account of the revenue history of the different *parganas* will show how Government have been led on step by step to intervene in order to preserve their

proper rights to the various strata of the agricultural population. The final stage of this process was reached in the survey and settlement of 1913-20. In 1789, by the record in the settlement with the then Raja of the names of and the sums payable by the old *jagirdars*, the first step was taken towards securing the holders of the under-tenures created by the Chero Rajas. These tenures were finally elevated into estates rather over 100 years later in 1895. In the Government Estate the actual cultivators of the soil had already been secured by the *raiyatwari* settlements of Mr. Forbes and Mr. Sunder, so that in their case the last settlement came only as a revision. Outside the Government Estate no detailed steps had been taken to secure the cultivators in their holdings, though the Raja had been adjured as long ago as 1876 to satisfy the *raiyats*. The last settlement marked the extension of the protecting arm of Government beyond the *jagirdars*, *ijaradars*, and other middlemen to the actual cultivators of the soil throughout the district.

As the result of the promotion of the Palamau tenure-holders in 1895 to being proprietors of estates, there are 258 revenue-paying estates in the registers of the district, with 728 separate accounts, paying a revenue of Rs. 1,09,157. The highest revenue is paid by the Sonpura estate (Rs. 7,884), the Deogan estate (Rs. 2,071), and the Chainpur estate (Rs. 1,096). The total number of revenue-free properties is 378 with 266 separate accounts.

The Chota Nagpur Encumbered Estates Act, (Act VI of 1876), has been extensively applied in this district and at one time as much as 1,631 square miles, or one-third of the district, was being administered under its provisions by the Deputy Commissioner. In the old days, before the Act came into force, executive action used to be taken by the local officers in Chota Nagpur to save the estates of the old *zamindars* from the bankruptcy and disruption with which they were so often threatened. Such action was originally taken to prevent the disturbances that were likely to follow on the ousting of the old families from their estates, but afterwards it was sometimes taken in the interests of the tenants who found their ancestral landlords more to their liking than the speculators who succeeded to their interests. In Palamau the Act has often been applied to save estates from bankruptcy with little discrimination as to

the origin of their proprietors : the properties of Brahmans, Rajputs, Kayasths, and Baniyas, who were comparatively new-comers into the district, have been protected in this way. In the larger estates succession is ruled by primogeniture; but in the smaller estates it is not; and they are therefore bound to disintegrate in the course of time. Many of the estates protected were already so small that they had a total rent-roll amounting to less than Rs. 1,000 a year, and there were often large numbers of co-partners to be provided for. At the time of writing the number of estates managed under the Act has been greatly reduced.

CHAPTER XII.

GENERAL ADMINISTRATION.

PALAMAU is a non-regulation district, i.e., some of the general regulations and acts have not been extended to it. The subdivisonal system was only introduced in October 1924, when an outlying subdivision was opened with headquarters at Latehar, consisting of the three revenue thanas of Latehar, Balumath and Mahuadanr, which include the jurisdictions of the six police-stations Latehar, Kerh, Balumath, Chandwa, Garu and Mahuadanr. The rest of the district consisting of the other six revenue thanas and the other fourteen police-stations constitutes the sadr subdivision. The whole district is under the control of the Deputy Commissioner, who has a staff consisting of six deputy collectors and two sub-deputy collectors, including the subdivisonal staff. In the administration of the wards and encumbered estates, which at present extend over 400 square miles, he is assisted by a manager and an assistant manager. In the supervision of the Government Estate, which has an area of rather over 350 square miles, he is assisted by a manager, known formerly as the Khas Tahsildar, who is now a sub-deputy collector. The greater portion of the protected forests in the estate was made over to the control of the Forest Department in the year 1920: only a small portion in Lesliganj circle covering an area of 16½ square miles, is under the direct management of the Deputy Commissioner with a subordinate establishment consisting of one forester, four forest guards and eight village headmen appointed to work as forest guards. The rest of the protected and the reserved forests are under the control of an Assistant Conservator of Forests. The chaukidari department is managed by a sub-deputy collector under the supervision of the Deputy Commissioner. The other local officers are the Superintendent of Police, the Civil Surgeon and District Engineer, the last mentioned being an officer of the District Board.

REVENUE.

When the district was first constituted in 1892-93 the revenue under the main heads amounted to Rs. 2,75,000. By 1901-02 it had risen to Rs. 3,11,000 and to Rs. 4,84,000 in 1905-06, of which Rs. 2,18,000 came from excise, Rs. 1,36,000 from land revenue, Rs. 70,000 from cess, and Rs. 49,000 from stamps. In 1924-25 the collections amounted to Rs. 14,76,101 of which over Rs. 10,00,000 came from excise, Rs. 1,76,000 from land revenue, Rs. 1,40,000 from local cess and Rs. 1,27,000 from stamps.

Excise.

"Excise", wrote Mr. O'Malley in 1907 in the first edition of the Gazetteer, "is the most important source of revenue". This is truer to-day than it was when the words were written. When the district was formed the excise revenue was rather over Rs. 1½ lakhs. Fifteen years later, when Mr. O'Malley wrote, it had risen to just over Rs. 2 lakhs. Fifteen years later again it had risen to about Rs. 3½ lakhs. By 1923-24 it was nearly Rs. 7½ lakhs, and in 1924-25 it was well over Rs. 10 lakhs. But from this it must not be assumed that there has been a great increase in the consumption of drink. Rather the contrary is the case, for whereas twenty years ago there was a licensed shop to every 43½ square miles and every 5,483 persons, now, with an increased population, there is only one shop to every sixty square miles and every 8,943 persons. The people have therefore less facilities for drinking than they had before, and the increase of revenue is in accordance with the ideal of excise administration which Government have steadily pursued, of combining a maximum revenue with a minimum consumption.

The outstill system is in force throughout the district. There are 82 outstills for the sale of country liquor, yielding to Government in licence fees an income of about Rs. 9 lakhs or nine-tenths of the excise revenue of the district. Twenty-two *garja* shops yield licence fees of about Rs. 39,000 and duty of about Rs. 25,000; and nine opium shops yield licence fees of Rs. 31,000 and duty of Rs. 16,000. The revenue derived from the sale of the other excisable articles is much less important.

The total expenditure involved in the collection of this large sum of money was only Rs. 24,000 or 2·3 per cent., of the total revenue. The executive staff consists of an excise superintendent, an inspector, seven sub-inspector, and nineteen peons.

The collection of land revenue rose from Rs. 63,000 in Land 1892-93 to Rs. 89,000 in 1901-02, and to Rs. 1,36,000 in revenue. 1905-06. In 1924-25 it was Rs. 1,77,000. In this year the current demand was Rs. 1,09,000, Rs. 81,000 of which represented the demand from the Government estate. There are 254 permanently-settled estates with a revenue demand of Rs. 25,000 and two temporarily-settled estates with a demand of Rs. 3,000. So far as can be foreseen, no further large increase can be looked for under this head except from the development of the mineral resources of the Government estate.

• In Palamau the local cess is levied at the maximum Local cess rate of one anna in the rupee. The collections in 1905-06 were Rs. 70,000. Twenty years later, in 1924-25, they had doubled, viz. Rs. 1,40,000, the current demand for the district (excluding Tori pargana) being Rs. 1,33,000, of which Rs. 80,000 were due from 986 revenue-paying estates and Rs. 41,000 from 636 revenue-free properties. The highest assessment is Rs. 16,005 on the Untari estate. The balance was due from miscellaneous industries assessed under chapter V, section 72 of the Cess Act. There are 21,448 tenures assessed to cess with 13,063 shareholders, while the number of recorded shareholders of estates is 21,448. The cess of Tori pargana is realised through the Deputy Commissioner of Ranchi. This pargana had not been revalued till recently for over 25 years, but on this occasion the revaluation of Tori was made as part of the revaluation of the rest of Palamau district. The total assessment of this pargana now comes to Rs. 14,000. The total current demand of the whole district therefore amounts to Rs. 1,33,000 *plus* Rs. 14,000 or Rs. 1,47,000.

The revenue from stamps rose from Rs. 26,000 in 1892-93 Stamps. to Rs. 41,000 in 1901-02 and to Rs. 49,000 in 1905-06. In 1924-25 it amounted to Rs. 1,27,000, of which Rs. 1,02,000 were obtained from the sale of judicial and Rs. 25,000 from the sale of non-judicial stamps. Amongst the former court-fee stamps and among the latter impressed stamps accounted for nearly the whole of the receipts.

Since the year 1923 income-tax has been transferred to Income-tax. the Central Government and is separately controlled by the Commissioner of Income-tax with headquarters at Ranchi. The income-tax officer stationed at Gaya has jurisdiction over this district.

Registration.

There are now three registration offices at Daltonganj and Husainabad. The registration office at Latehar which was opened in 1904 was closed in 1908, but, owing to the formation of the Latehar subdivision, it has very recently been reopened with the second officer as *ex officio* sub-registrar. At Daltonganj there is a district sub-registrar who deals with the documents presented there and assists the Deputy Commissioner in supervising the work of the other sub-registrars. The following are the salient statistics of the two offices that existed in 1924-25 :

—				No. of documents registered.	Receipts.	Expenditure.
					Rs.	Rs.
Daltonganj	...	...	...	1,659	9,144	3,823
Husainabad	...	...	...	594	2,497	2,055

ADMINISTRATION
OF JUSTICE.

Criminal justice is administered by the Deputy Commissioner who has special powers under section 30 of the Criminal Procedure Code and by the sanctioned staff consisting of three deputy magistrates with 1st class powers, two deputy magistrates with 2nd or 3rd class powers and one sub-deputy magistrate. In addition, the officer in charge of the Government estate, who is now a sub-deputy collector and the chaukidari officer, who is also a sub-deputy collector, hear occasional criminal cases. There is no honorary magistrate at present. For the Latehar subdivision there is the subdivisional officer with first class and a sub-deputy magistrate with second class powers.

Crime.

The criminal work of the district is increasing. In the past, owing to the scattered population and great distances of the villages from the police-stations, numerous offences, especially in the south of the district, used to go unreported. After 50 years the people have come to regard the courts at Daltonganj as part of the established order of things and, with the improvement of communications, the habit of litigation is growing. With the opening of the Latehar subdivision the number of reported crimes and petty offences in the south of the district is likely to increase markedly. Burglaries and thefts are the most common form of crime. With the improvement of the police administration, the dacoities

committed by the Korwas on the Sirguja border have died down, though no doubt, given the opportunity, they would quickly begin again. Cattle poisoning is less common than it was. The paddy and lac harvests are accompanied by thefts and spasmodic riots, which occasionally result in murder. But the people of Palamau are not addicted to witch murders to the same extent as their neighbours in Ranchi district.

The Deputy Commissioner is *ex officio* subordinate judge Civil of the district, and a deputy magistrate is also vested with justice. the powers of a sub-judge. He completes the preliminary stages of the civil suits, and contested cases, when ready, are transferred to the file of the special sub-judge of Ranchi, Hazaribagh, and Palamau who holds his sittings at Daltonganj three or four times a year as necessity arises. There is a munsif at Daltonganj with the powers of a small cause court up to the value of Rs. 100. Since January 1923 he has been empowered to try original suits up to the value of Rs. 4,000 under the ordinary procedure. He also exercises the powers of a deputy collector in dealing with rent suits under the Chota Nagpur Tenancy Act. Since the year 1924 by way of an experiment a deputy collector of the general line has also been disposing of rent suits.

The head of the police force in the district is the District Police Superintendent. For police purposes the district is divided into three inspectors' circles, of which two, Daltonganj and Garhwa, are in the sadr subdivision, while the Latehar subdivision forms the third. A fourth inspector is employed in the court at Daltonganj. The force includes also a sergeant-major, 37 sub-inspectors, of whom two are employed in the courts, thirty-one writer and nine illiterate head constables, and 293 constables. The police-stations, the names of which will be found in Table I, are twenty in number. There is a policeman to every 13 square miles and to every 1,945 persons in the district.

Watch and ward in the villages is the duty of the 1,219 Village *chaukidars* appointed under the Chota Nagpur Rural *chaukidars*. Police Act. The tax assessed for this purpose on the villagers is collected by twenty-five *tahsildars*. The pay of the *chaukidars* is between Rs. 3 and Rs. 6 a month, the pay of the great majority being Rs. 4. Nearly 200 of these also hold *chakran* lands, but their pay is fixed irrespective of this fact. There are also 36 *ghatwals* appointed under *Ghatwals*.

the same Act, whose duty it is to guard 20 of the *ghats* or passes in which there is a fear of travellers being waylaid by robbers. This system is a survival of the day when all the *zamindars* policed their own estates. The number of the *ghatwals* is less than it was and the utility of those that remain is not great. The *ghatwali* fund, which has an income of about Rs. 2,500 a year, is raised by assessment of those proprietors of estates and tenure-holders who hold their estates and tenures on the express condition that they will provide for this service.

Jail.

The jail buildings are situated to the east of the town, on the high ground near the railway. In accordance with the recommendation of the recent Indian Jail Commission the district jail was reduced to the status of a subsidiary jail in 1922. The average population last year was just under 10 under-trial and just under 5 convict prisoners. The health of the jail population is generally good. The staff consists of two head warders, eight warders, and a clerk. The Civil Surgeon is the superintendent and medical officer.

CHAPTER XIII.

LOCAL SELF-GOVERNMENT.

The District Board was first established in 1900, when the provisions of the Bengal Local Self-Government Act of 1885 were extended to Palamau. There were till recently twelve members of whom five were *ex officio* and seven nominated by Government. The first elections under the Bihar and Orissa Amendment Act of 1923 were held in 1924, and there are now twenty-five members, of whom eighteen are to be elected and six nominated, while the chairman also is nominated. The police-stations form the constituencies which return the elected members, except that Kerh is combined with Garu and Ranka with Bhandaria in single constituencies.

Originally the Board had an income of about Rs. 90,000 a year and its expenditure was in proportion. In 1923-24 the Board's total income, excluding opening balance, was Rs. 2,92,000, of which only Rs. 96,000 came from local cess : since the recent revision however the income from cess has increased to Rs. 1,43,000. In 1923-24, the last year for which complete information is available, rather over Rs. 1½ lakhs were received from Government ; Rs. 67,000 as a contribution for education, and Rs. 35,000 for medical relief, while Rs. 54,000 were received for works, mostly those in which the Board acts as the agent for Government. Another Rs. 9,000 were derived from pounds and Rs. 2,500 from ferries. On the other side of the account, the total expenditure chargeable to current income was Rs. 2,37,000, of which Rs. 1,43,000 were spent on civil works (communications Rs. 94,000, buildings Rs. 9,000, and water supply Rs. 5,000), Rs. 46,000 on education (grants-in-aid Rs. 19,000, primary Rs. 18,000, middle Rs. 5,000), and Rs. 28,000 on medical relief (hospitals Rs. 27,000). The Board maintained 25 miles of metalled, 500 miles of unmetalled, and 47 miles of village roads. It maintained 3 middle vernacular, 34 upper primary, 47 lower

primary, and three other schools : and it gave grants-in-aid to three upper primary and 230 lower primary schools. It also maintained nine and aided one dispensary.

The District Board of Palamau has had an up-hill fight. Its income has been small, and the cost of constructing roads in a country full of hills and rivers has been great. A large part of its income and of the time of its staff has been spent in maintaining in a passable state of repair roads, bridges, and buildings originally constructed for economy's sake of inferior quality. With increased income it is to be hoped that the existing works will in time be replaced by others more durable, so that more money and attention may be available for new works.

UNIONS.

There is no Local Board in the district. There used to be two Unions under the Local Self-Government Act, at Husainabad and Garhwa, each with nine members. In 1923-24 Husainabad had a very small income, apart from opening balance, of Rs. 1,650, of which Rs. 1,350 were spent on establishment : Garhwa, which had an income of Rs. 4,750 including Rs. 3,600 from taxation under section 118 of the Act, spent Rs. 2,050 on establishment and Rs. 2,200 on village roads. Garhwa also had the advantage of the Garhwa bazar improvement fund, which is administered by the Deputy Commissioner.

VILLAGE ADMINISTRATION ACT.

These Unions have now become Union Boards under the Village Administration Act of 1922; and there are similar Boards also in the rural areas of Husainabad and Garhwa, and in Daltonganj (2), Patan, and Hariharganj police-stations. The new Boards consist of five elected and two nominated members apiece, and they exercise functions under part IV of the Act.

DALTONGANJ MUNICIPALITY.

Daltonganj is the only municipality in the district. It was constituted on July 1st, 1888 and the municipal committee originally consisted of ten members, five *ex officio* and five appointed by Government. The elective system was first introduced in 1913, and the first elections under the new Bihar and Orissa Municipal Act (Bihar and Orissa Act VII of 1922) were held in 1923. The committee now consists of fifteen members, of whom 12 are elected (2 by each of the 6 wards), and 3 nominated, the chairman being an elected non-official. The area within municipal limits is $3\frac{1}{2}$ square miles, and the

population 9,817, of whom 1,719 or 17·8 per cent. are rate-payers. When the municipality was first constituted, the average income was rather above and the average expenditure rather below Rs. 5,000 a year. In 1923-24 there was a total income, excluding opening balance, of Rs. 86,000; of which Rs. 58,000 came from the market, Rs. 14,000 from rates and taxes, and Rs. 8,000 from grants. The incidence of taxation per head of the population was Re. 1-6-10 as compared with the provincial average of Re. 1-14-1, but the municipal income distributed among the population gave each person Rs. 8-11-11 as compared with the provincial average of Rs. 2-11-3. The tax-payers of Daltonganj are in fact far more favourably situated than those of any other municipality in the province.

“ O fortunati nimium, sua si bona norint.”

For this they have to thank the Government for handing over to the municipality the income from the bazar. Personal tax is levied at the rate of $\frac{3}{4}$ per cent. of the assessee's incomes and 6 per cent. on the annual value of public buildings : latrine tax and water-rate are also levied, and small sums are realized from tolls, from taxes on animals and vehicles, and on certain professions and trades. The total expenditure for the same year came to Rs. 61,000, of which Rs. 12,000 were spent on roads and a similar sum on maintaining the hospital, Rs. 8,000 on conservancy, and Rs. 5,000 each on water-supply and education. Water is supplied to the town from the bed of the river Koil. It is pumped up from their pumping station by the East Indian Railway Company and supplied by them to the town at the rate of 2 annas per 1,000 gallons. At present a scheme is under contemplation for increasing the capacity of the pumps and providing a settling tank in order to regulate and purify the supply. A further account of the town will be found in chapter XV.

The non-Muhammadan rural population of the district returns a representative to the Provincial Council. The non-Muhammadans of Daltonganj Municipality are included in an urban constituency which includes all the municipalities of the Chota Nagpur Division. The Muhammadans, both rural and urban, are included in the Muhammadan constituency of Chota Nagpur.

REPRESENTA-
TION IN THE
PROVINCIAL
COUNCIL.

CHAPTER XIV.

EDUCATION.

LITERACY.

According to the census of 1921 there were in the district of Palamau 20,302 persons, 19,239 males and 1,063 females, who were literate, i.e., capable of writing a letter to a friend and reading the reply. Out of these 20,302 persons, 1,355 were literate in English. This means that, neglecting all children of under five years of age, only 32 persons in the district out of every 1,000 were literate. Palamau is in fact the most illiterate district in the province except Angul, for which the corresponding figure is 30. The figures for the other districts of the Chota Nagpur division are given in the margin. In

No. of literate persons per mille of population aged 5 and over.			Palamau literacy is most common in Daltonganj thana (6,022), Husainabad (3,860), Garhwa (3,397), and Patan (3,011), which together account for four-fifths of the literate population of the district. The number of literate persons in the district has doubled itself in the last 20 years, for the number of literate persons in 1901 on a lower qualification was only 11,851. Nevertheless the progress of education is regrettably slow. The villages in many parts of the district are small, remote, and difficult of access: the people are largely of aboriginal descent, poor, ignorant, and indifferent to the education of their children. These conditions are not conducive to the rapid spread of education.
Hazaribagh	...	35	
Ranchi	...	40	
Manbhum	...	59	
Singhbhum	...	45	

Educational institutions.

In 1891-92, when the district was first constituted, there were in Palamau 109 schools, including one high school, 2 middle vernacular, 76 vernacular, and 36 private, with a total of 2,814 pupils. Ten years later the District Board was constituted and in the following year, i.e., 1901-02, there were 273 schools with 7,217 pupils, the increase being mostly in primary schools which had increased in number to 248 with a total of 6,527 pupils. Ten years later again, in 1911-12,

the total number of schools was 390 with a total of 8,716 pupils. In 1922-23 the number of institutions had fallen to 345 owing to a decrease in the number of aided schools under the baneful influence of non-co-operation, but the number of pupils had risen to 9,585. In 1923-24, owing to the decline of non-co-operation and the receipt of further grants from Government, education expanded once more, and by 1924-25 the total number of recognized schools had risen to 484 and of pupils to 15,266. This gives an average of one school to every 10 square miles and of 32 pupils to each school.

There is a Government high English school, the zilla Secondary school at Daltonganj, with over 300 boys reading in it. There are 4 middle English schools for boys aided by Government with a total of 360 pupils at Daltonganj, Husainabad, Garhwa, and Nagar Untari. There are also 4 middle vernacular schools for boys managed by the District Board with 450 pupils in all at Hariharganj, Haidarnagar, Bistrampur, and Lesliganj, while Daltonganj municipality manages one school of this description with over 100 boys. schools.

In 1924-25 there were 42 upper primary and 427 lower Primary primary schools for boys with a total of 12,609 pupils. About half of these were aided, one quarter managed, and the remaining quarter unaided. Most of the upper and some of the lower primary schools are housed in buildings provided for the purpose: the rest are generally held in the house of some big man in the village. Forty-six night schools were also open with 868 pupils. They are attended by adults and children, mostly low caste, who are employed during the day, to receive instruction in the three R's, reading, writing, and arithmetic. Primary schools.

In the same year there were two *guru* training schools at Rehla and Satbarwa with 17 pupils in each. The students undergo a one or two years' training according to their qualifications: during the course they receive stipends of from Rs. 7 to Rs. 9 a month, also according to their qualifications, and when it is over they become eligible to become teachers at primary schools. There was also a Muhammadan teachers' training school at Daltonganj, and two Sanskrit tols, one at Daltonganj and one at Ararua. Training schools.

There were 52 primary schools for girls with 1,216 pupils. There were also 429 girls attending boys' schools. There is as yet no institution for training girls above the primary stage. Girls' schools.

Hostels.

There is a hostel attached to the zilla school at Datonganj. Hostels are attached also to the middle vernacular schools, except at Lesliganj, to the two *guru* training schools, and to the Muhammadan training school.

**Education
by religion.**

The latest figures available show that there were 11,322 Hindus (including 226 members of the depressed classes), 2,558 Muhammadans, 733 Christians, and 650 aboriginals attending school. In other words 74 per cent. of the pupils were Hindus and 17 per cent. Muhammadans : as the proportions of Hindus and Muhammadans to the total population of the district are 84 and 9 respectively, it will be seen that relatively the Muhammadans are by no means behindhand in the matter of education.

**Inspecting
staff.**

The educational inspecting staff of the district consists of a district inspector and 6 sub-inspectors of schools.

The crying educational need of the district at the present time is more and still more primary education, in order in particular to enable the cultivators to read their rent receipts and the record-of-rights.

CHAPTER XV.

GAZETTEER.

Alinagar.—A village situated in the extreme north-east of the district, 5 miles east of Husainabad. The village contains a small fort, of which the following description is given in the Annual Report of the Archæological Survey, Bengal Circle, for 1903-04 :—“ This fort is called by the villagers Rohilla Killa, and its erection is ascribed to a certain Musafi Khan, whose real name was perhaps Muzaffar Khan, although I do not know which person of that title is meant. The fort certainly is of a late period, and very likely built by a Muhammadan. It stands on a small hill north-east of the village. Its shape is rectangular, with a square chamber in each corner. The walls inside measure 55 feet 8 inches by 45 feet 10 inches, and 65 feet 8 inches outside between the corner rooms. The latter measure 18 feet by 19 feet 3 inches outside. Inside are 5 arched niches in each wall, some of which are open. Stairs led to the roof, which was protected by loopholed battlements. In the inner court is a square well, and another one is a little below on the eastern slope of the hill with a vaulted tunnel leading to it. The walls are made of stones, mixed with concrete and bricks. The building is in ruins, but does not call for any repairs, as it is of very little archæological or architectural interest. ”

Amhar Tappa.—A *tappa*, subordinate to Tappa Untari, situated in the west of the district. It adjoins Tappa Untari at the north-east corner of the latter.

Balumath.—A revenue *thana* conterminous with Tori Pargana in the south-east of the district. It contains the jurisdictions of 2 police stations, viz. Balumath with a population of 46,756 and Chandwa with a population of 20,703. The jurisdiction of Balumath police station is of irregular shape and actually touches the Ranchi road west of Latehar. In Balumath village, which is accessible by road from Chandwa (12 miles), there is an inspection bungalow.

Baresar Tappa.—A *tappa* in the south of the district consisting of a small valley, traversed by the Barwe river and forming a complete basin surrounded by lofty forest-clad hills. There are only 7 villages in the *tappa* of which the most important is Baresar, a Government village with a forest bungalow and formerly a police outpost. The forest road from Lat and the District Board road from Garu converge at this point; from Baresar a road goes south to Mahuadanr.

Barl Tappa.—A large *tappa* in the centre of the district, lying on the east bank of the Koil and the north bank of the Auranga. It contains much broken and hilly ground in the south, whence numerous streams flow into the Auranga. Daltonganj is situated in this *tappa*, and the Ranchi road passes through the middle of it. It includes 77 villages of the Government Estate.

Barkol Tappa.—A *tappa* on the south-western boundary of the district along the right bank of the Kanhar river. It is a hilly, jungly tract of great natural beauty, including the high plateau of Sarwat. A bazar of some local importance is held at Bargarh on Sundays, but this bazar, like others in this part of the district, has lost much of its business owing to the closing of the door of Sirguja.

Belaunja Pargana.—(See chapter XI). This *pargana* forms a long strip of broken, hilly country, varying from 10 to 12 miles in breadth, between Palamau Pargana on the south and the Son on the north. It is bounded on the west by Mirzapur district of the United Provinces and on the east by the Koil, but Khaira Tappa is on the east bank of that river. Until 1871 the *pargana* belonged to the district of Gaya. The Dema or Sonpura estate extends over the greater part of it.

Bhandaria.—A village 18 miles as the crow flies south of Ranka. It is the headquarters of a police station, the jurisdiction of which is bounded on south and west by Sirguja, and contains less than 9,000 persons. The new railway will eventually pass close to it.

Bhaunathpur.—A police station 10 miles east-north-east of Untari. The jurisdiction of this police station lies in the angle between the Son and Koil rivers; it includes a population of 59,000 persons.

Bisrampur.—A village situated $10\frac{1}{2}$ miles north-east of Garhwa and 5 miles from Garhwa Road station. The village, in which a market is held on Sundays, is an important centre for local trade. It contains a police station and a middle vernacular school. It contains also the residence or *garh* of a Babuan family which traces back its descent to the Maharajas of Palamau, the founder of the family being Nirpat Rai, a brother of Jai Kishun Rai, who held sway over Palamau about 1750. Gajraj Rai, the son of Nirpat Rai, assisted the British in the capture of the Palamau forts in 1772, and another member of the family, Bhavani Bakhsh Rai, rendered good service in quelling the Kol rebellion in 1832. The present head of the family is Babu Nageshvar Bakhsh Rai.

Chainpur.—A village situated 2 miles west-south-west of Daltonganj. It is one of the largest villages in the district with a population of 3,033, and the centre of a considerable trade; *daris* or coarse carpets and brass utensils are manufactured there. A market is held on Saturdays.

Chainpur contains the ruins of an old fort and is the residence of the influential family of the Thakurais of Chainpur, who are descendants of the Diwans of the Chero chiefs, and have on many occasions displayed great public spirit and loyalty to Government. The family belongs to the Surwar sept of Chandrabansi Rajputs, in full Chhatri Chandrabansi Gours, and its present head is a minor, Thakurai Brijdeo Narayan Singh. He traces back his descent to Raja Dohsasan Singh, who left the ancestral home at Surpur, about 300 miles south-west of Delhi, took service under the Emperor, and became a commander of the imperial forces. His son, Sarandhar Singh, migrated to the Shahabad district, where he was put in charge of the fortress of Rohtasgarh and obtained a grant of the *talukas* of Dhaudanr and Tilothu. He built a fort for himself at Dhaudanr, and was succeeded by Makhain Singh *alias* Deo Sahi, who gave shelter to the Chero chief, Bhagwat Rai, when flying before the Emperor's forces. Thakurai Puran Mal, the son of Deo Sahi, accompanied Bhagwat Rai to Palamau and assisted him in its conquest, the agreement between them being that, in return for his services, the Thakurai and his descendants should be the *sarbarahkars* of Palamau, i.e., be given authority to manage the country and should also have sole power to select its Rajas from among

the descendants of Bhagwat Rai. This power they continued to exercise until the British conquest; and during the period of Chero rule their influence was recognized by the Mughal government, which conferred on the heads of the house the honour of a place near the imperial throne and also made them several *jagir* grants; *farmans* of the Emperor Alamgir, Muhammad Shah, and Farrukhsiyar making these grants are still in existence. One of the most famous of the line was Thakurai Amar Singh who in 1721 headed a rebellion against the ruling chief, Ranjit Rai, defeated him in battle, and set up Jai Kishun Rai in his place. Amar Singh is also said to have defeated the Pindaris during one of their raids on the borders of Palamau, and his descendants still possess a *nakkara* or kettle drum which he took from them. On his death dissension again broke out, Thakurai Sainath Singh being treacherously put to death by the Raja; and his cousin, Jainath Singh, thereupon collected an army with which he defeated Jai Kishun Rai near Chetma hill and, the latter being shot in the fight, placed Chitrajit Rai on the *gaddi* in 1764. When the British conquered Palamau, the Thakurais lost the position of Diwans and virtual king-makers, but gave loyal aid to the Government. In the Sirguja campaign of 1802, the eldest son of Thakurai Ram Bakhsh Singh accompanied the British troops; in the Kol rebellion of 1832 Chhatardhari Singh rendered good service and personally took part in a fight at Latehar; and in the Mutiny of 1857 Raghubar Dayal Singh gave valuable assistance to Government which was acknowledged by an *inam-i-jagir* grant of 26 villages, a *khillat*, and the title of Rai Bahadur. The title of Raja was conferred as a personal distinction upon the father and also the grandfather of the present proprietor. The area of the estate is 395 square miles.

Chandwa.—A village on the Ranchi road, 57 miles from Daltonganj, which contains the headquarters of the police station of that name in the south-east corner of Tori Pargana. The population of this jurisdiction is 20,703. There is an inspection bungalow in the village.

Chhattarpur.—A village 28 miles north of Daltonganj on the Hariharganj road, at the point where it is joined by the road from Husainabad. It is the headquarters of a police station with a population of 37,784 persons.

Chhechhari Tappa.—A *tappa* situated in the extreme south of the district, consisting of a large valley closed in on every side by hills. On the north is a spur crowned by the ancient fort of Tamolgarh, which is said to have been built by the Raksel Rajputs; below this is a narrow gorge, through which the whole drainage of the valley escapes by the Burhi or Barwe river. On the south are the hills which divide Palamau from the Barwe in Ranchi district. The hills on the east are crowned by the plateaux of Netarhat and Pakripat: and those on the west by the Jamira Pat plateau in Sirguja. The valley has a radius of about 7 miles, and presents the appearance of a great bowl of which the sides are almost perpendicular. It seems probable that this valley must once have been a lake. It contains a number of villages, the property of the Bhaiya Sahib of Chhechhari.

Daltonganj.—Headquarters of the district, situated in $24^{\circ} 3' N.$ and $84^{\circ} 4' E.$ on the Koil river. The population was 5,837 in 1901; in 1911 it was 7,179; and in 1921 it had risen to 9,817. The area of the town is $3\frac{1}{2}$ square miles. Daltonganj was founded on Government land in the year 1861 by Colonel Dalton, Commissioner of Chota Nagpur, after whom it was named; the name is however commonly corrupted into Laltenganj. It is the terminus of a branch line running south from Barun or Son East Bank on the Grand Chord of the East Indian Railway; this line is now being carried further south beyond Daltonganj to meet the Central India Coalfields railway at Barwadih. The town is also the focus of the road system of the district. It contains the usual public offices, hospitals and a small jail; it contains also a large market, the property of Government, which however makes over the income derived from it to the municipality. Daltonganj is well drained and healthy, though hot. It is well provided with roads lined with avenues of teak, mango and cork trees. The water-supply is derived from the bed of the Koil, whence it is pumped by the railway company, under an agreement originally made in 1904 as explained in chapter XIII. The town is a centre of local trade and its importance has increased with the development of the lac trade. The market day is Wednesday. Daltonganj is now outgrowing the Government village in which it was originally founded; in particular a number of lac factories have been erected in privately-owned villages outside the municipal boundary. A number of sites for residences have recently

been provided in land by the jail which is no longer required by the Jail Department.

Opposite Daltonganj on the west bank of the Koil is the village of Shahpur, in which Gopal Rai, the Raja of Palamau, built a palace at the end of the 18th century. Shahpur stands on a high tract of land and the ruined palace, the white temples and other masonry buildings, and the medley of red roofed huts embowered in trees present a picturesque view from Daltonganj. A nearer view of the palace is disappointing, for what looks in the distance like an imposing edifice is seen to be a tawdry half-finished building of no architectural merit.

Deogan.—A village situated in the north-east of the district. It contains the remains of an interesting old Chero fort, and it is said that it was once a flourishing town with 52 streets and 53 bazars. The village has given its name to a *tappa* and also an estate, extending over 327 square miles, the greater portion of which forms a compact block in the north-east corner of the district. The estate was till recently managed under the provisions of the Encumbered Estates Act, but has now been released in favour of Dulhin Janki Kuer, widow of the late proprietor. It appears that one Bharat Rai formerly held Chakla Deogan, which comprised 353 villages, as a maintenance grant from the Maharaja of Palamau and, when he was killed by some Sarwar chief in the course of a feud, it reverted to the Maharaja in default of a male heir. The estate having been thus resumed, was given as a maintenance grant to Sugand Rai, a nephew of Jai Kishun Rai, Maharaja of Palamau, in addition to 74 villages already held by him, and from him has descended to the present proprietor.

Dhurki.—A village 12 miles south of Nagar Untari, near the junction of Mirzapur and Sirguja, in which a large market is held on Fridays.

Durjag Tappa.—A *tappa* in the south of the district, bounded on the west by the Koil river and on the south and east by reserved forests. It is one of the most beautiful parts of the district, consisting of a small valley surrounded by forest clad hills: Government owns 23 villages with an area of 60 square miles. In the centre of the *tappa* is a large hill

called Kandi, the scene of the worship of the spirit called Durjagia Deota, which has been described in chapter III; the officiating Baiga resides in the village of Harnamanr.

Duthu Tappa.—A hilly *tappa* in the south-west of the district, inhabited chiefly by Oraons. A range of hills, forming a sort of plateau, runs from south-west to north-east through the *tappa*, of which the most prominent peaks are Bijka, with a dome-like crest forming a landmark for many miles round, Harta, Bhagi, and Nauka—all offshoots from the Galgal Pat.

Garhwa.—A town, situated on the Danro river, 6 miles west of Garhwa Road railway station and 19 miles north-west of Daltonganj, with which it is connected by an unbridged road. The population at the 1921 census, when it was treated as a town, was 9,626 only, just below that of Daltonganj. The town contains a police-station, dispensary, District Board bungalow, and middle English school. Formerly it was a municipality and a bench of honorary magistrates sat here, but these have been abolished long ago. For some years the town was administered as a union under the Local Self-Government Act, and it is now a union under the Village Administration Act. Notable improvements have been effected in the market by means of a fund known as the Garhwa Bazar Improvement Fund, which represents 10 per cent. of the income derived by the proprietors from their annual settlements of the bazar. Owing to the development of the lac business the annual settlement rose to over Rs. 45,000 in the years before 1924, when the rival bazar at Bohla was opened; but since then it, and with it the income of the improvement fund, has declined to little more than half of what it was before. The proprietors of the bazar are tenure-holders under the Bhaiya Sahib of Untari, and Government is interested to the extent of 2 annas. The Deputy Commissioner is the trustee of the fund and the works of improvement are executed by the District Board. Although Garhwa is no longer the clearing house of the trade of Sirguja, it is still by far the most important market west of the Koil. Lac, oil-seeds, hides, and *ghi* are collected here for export: the chief imports are food grains, brass vessels, cotton piece goods, woollen goods, salt, kerosene oil, tobacco, spices, etc.

The town is surrounded on three sides by the Danro and Saraswati rivers, and is said to derive its name from the fact that it is built on low ground.

Garu.—A village on the south bank of the Koil, 16 miles south of Kerh, which is the headquarters of a police station with a population of 6,806 and of a circle of the Government estate. The country in this area consists chiefly of hill and jungle and the population is sparse. It is intended to build a bridge across the river at this point which will give access to the Garu and Mahuadanr *thanas* at all times.

Goawal Tappa.—A *tappa* situated in the centre of the district, along the west bank of the Koil. The tract comprised within it is undulating and broken up by numerous streams, which rise from the hills to the south and flow northwards into the Koil, irrigating the rice fields through which they pass. It is traversed by two roads leading from Daltonganj on the east and Ranka on the south to the town of Garhwa. It contains 26 Government villages with an area of $10\frac{1}{2}$ square miles.

Haldarnagar.—A village situated in the north-east of the district, on the little used Garhwa-Barun road, 5 miles south-west of Japla railway station. The village was founded in the 18th century by Saiyid Nabi Ali Khan, the son of Nawab Hedayet Ali Khan, after his father had founded Husainabad. It is provided with a railway station and a dispensary, and a large market is held on Tuesdays.

Hariharganj.—A village 43 miles north of Daltonganj, on the only road available for wheeled traffic into Gaya district. It is right against the Gaya border and adjoins the village of Maharajganj in that district. It is the headquarters of a police-station with a population of 18,963. It is still an important mart on the road to Aurangabad and Palmerganj railway station, but not so important as it was before the opening of the railway. There is an inspection bungalow in the village. Here is the home of the descendants of Udwant Ram Kanungo, the story of whose tragic end is related in chapter II.

Herhanj.—A village in the north-east corner of Balumath *thana*, where an important market is held on Sundays. There is a *ghatwali* bungalow in the village, which lies half way between Panki and Balumath.

Husainabad.—A village in the extreme north-east corner of the district, near the bank of the Son and opposite the fort of Rohtas in Shahabad. The population of the town at the last census was 3,802. It was a union under the Local Self-Government Act and is now one under the Village Administration Act. It is the headquarters of a police-station. The place, which is so named after Husain, one of the grandsons of the Prophet, was founded in the early part of the 18th century by Nawab Saiyid Hedayet Ali Khan, Deputy Governor of Bihar and father of the author of the *Sair-ul-Mutakharin*. Descendants of the Nawab still reside here. It was built on the site of the old village of Japla Dinara, and the railway station is known as Japla. The Japla cement works are at Deorhi, on the bank of the Son, about 3 miles from Husainabad.

Hutar.—A village in the angle formed by the Koil and Auranga rivers which gives its name to the Hutar coalfield.

Jaipur.—A village 6 miles due east of Patan police-station which contains the *garh* or house of the proprietor of the Deogan estate. A bazar is held in the adjacent village of Nawa (q.v.) on Tuesdays.

Japla.—The ancient name of Husainabad (q.v.), is also the name of the small *pargana* which lies along the bank of the Son in the north-east corner of the district. The evidence of the inscriptions mentioned at the beginning of chapter II suggests that it was originally the headquarters of a Kharwar chieftain. In the time of Shah Jahan Japla *pargana* is mentioned as one of those included in the *jagir* of the commander of Rohtasgarh, and the name occurs also in Todar Mall's rent-roll in the *Ain-i-Akhbari*. The *pargana* was transferred to Palamau from Gaya district in 1871.

Kanri.—A village 3 miles south-west of Sonpura in which many of the persons expropriated by the 1923 flood were settled. A dispensary is being built there, and it is intended to build also a District Board bungalow and to construct a road from Muhammadganj ferry.

Kechki.—A village in the extreme point of the angle formed by the Koil and Auranga rivers, containing a forest bungalow, and close to the Auranga bridge. Its present importance is due to the fact that the bamboos which are

removed from the Government forests are carted to this point and floated down the Koil from here. At certain times Kechki is therefore the scene of considerable activity.

Kerh.—A village 10 miles south of the Auranga bridge containing a police station and a forest bungalow. The Hutar coalfield and large tracts of reserved forest are included in the jurisdiction of this police station, the population of which at the last census, when it was still innocent of any railway or coal mine, was 16,200 only.

Khaira Tappa.—A *tappa* in Belaunja *pargana* but lying east of the Koil. The name is doubtless taken from the Khaira Pahar standing in the village of the same name, a most conspicuous hill which forms a landmark for many miles round.

Kot.—A village adjacent to Lesliganj and also a *tappa*, situated in the centre of the district, on the south bank of the Amanat and including some of the richest land in Palamau. It includes a number of villages in the Government estate.

Kumandih.—A conspicuous range of hills and a block of reserved forest in the Latehar range, about 12 miles west of Latehar. The highest point of these hills is 2,530 feet above sea level.

Kutku.—A village where the Koil turns north and forces its way through the hills. There is a forest bungalow here, with a fine view up and down the river.

Ladi.—A village in Daltonganj police-station, 4 miles south-west of the town. It contains the *garh* of Kuar Ambika Prashad Singh, who succeeded his father, the late Rai Bahadur Amardyal Singh, as proprietor of the Ladi estate in 1925. The family, who are Biswen Rajputs, claim to be descended from a junior branch of the Manjhauli Raj family of Gorakhpur district, and to have come to Palamau in the second half of the 18th century where they rendered various services to the Maharajas of Palamau.

Lat.—A village in the Government estate, 8 miles west of Mundu on the Kerh-Garu road, and 4 miles north of the Koil. It contains a bungalow of the Forest Department, and is connected by roads of the same department with Mundu and with Baresanr.

Latehar.—A village in the Government estate, 41 miles from Daltonganj on the Ranchi road, with a population of 884. Since 1924 it has been the headquarters of a subdivision,

which includes the Bahumath, Chandwa, Latehar, Kerh, Mahuadanr, and Garu police stations, containing a total population of 147,557. The subdivisional buildings consist of a court house and office, a sub-jail, a Subdivisional Officer's residence, and quarters for the staff. The village contains also a police-station, a *tahsil* office of the Government estate, a District Board bungalow, a dispensary, and a post office. A telegraph office will shortly be established. It is accessible from Daltonganj by a motor-bus service.

Lesliganj.—A village just south of the Daltonganj-Manatu road, 10 miles east of Daltonganj. It was founded by, and is named after, Mr. Matthew Leslie, Collector of Ramgarh, who effected the decennial settlement with Thakurai Shiva Prashad Singh in 1789. At that time a detachment of troops was quartered here and for that reason it is locally known as Chhauni, i.e., cantonment. From 1859, when Koranda was abandoned, till 1862, when Daltonganj was opened, Lesliganj was the headquarters of the Palamau subdivision. The village contains a police-station, located in an old military building that was besieged in the Mutiny of 1857, a District Board bungalow, and a *tahsil* office of the Government estate.

Mahuadanr.—A village situated in the extreme south of the district in the Chhechhari valley. It contains a District Board bungalow, and a hospital, and is the headquarters of the Mahuadanr police station and of a Roman Catholic mission, the genesis of which is related in chapter III. The name of Father Dehon will always be associated with this mission: it was he who built the bungalow, school, and, most remarkable, the church dedicated to St. Joseph, which is to this day the only church in the district. This building remains as a striking memorial to the enthusiasm and skill of the Father. Miles from any town or any road, it was built brick by brick by the local converts under his inspiration and guidance. No plan was made or used. The Father laboured with his own hands and gave verbal instructions to the converts. To-day it stands as he left it 30 years ago, a tall red brick building, 100 feet long, 45 feet wide, surmounted by a steeple 90 feet high, and altogether a notable landmark in the valley.

Manatu.—A village 36 miles north-east of Daltonganj on the old "Bihar Cotton road" to Sherghati. The headquarters of the Manatu police station (population 34,076) are here; also a District Board bungalow, and a dispensary. The *garh*

of Babu Paryagjit Singh, Mawar Sahib of Manatu, is also in the village. The hill of Goralatka, with its tooth-like peak, a mile or two west of the village, is visible for many miles.

Mankah.—A large village, 24 miles from Daltonganj on the Ranchi road. The *zamindars*, a Chero family, remained loyal during the Mutiny, and their village was destroyed by the rebels. A bazar is held here on Fridays.

Mankeri Tappa.—A *tappa* in the south-east of the district, of which the greater part lies immediately south of Latehar and the Auranga river. Many of the villages in it belong to the Government estate. There is a small fort in the village of Narayanpur in this *tappa*, of which it is said that, if any descendant of the proprietors approaches it, he will meet a sudden death there, because his forefathers neglected to make the due offerings to the soul of its founder. It is consequently neglected and overgrown with jungle.

Nagar Untari.—See Untari.

Nawa.—A village 20 miles north of Daltonganj on the Hariharganj road. The village contains a District Board bungalow.

Twelve miles south-east of this place is the village of Nawa Jaipur, where is the *garh* of the proprietors of the Deogan estate, who are the descendants of the Maharajas of Palamau. See the articles on Deogan and Jaipur, and the account of the origin of the estate in chapter II.

Netarhat.—A plateau in the Government estate, in the extreme south of the district, the highest point of which rises to a height of 3,696 feet above sea level. The base is formed of massive, felspathic granite, which is exposed to within about 420 feet of the summit. Laterite then appears, and then boulders of trap within 180 feet of the summit, after which laterite only is seen. The plateau is about 4 miles long and $2\frac{1}{2}$ miles broad, and its total area is about 7 square miles. It is in the form of a horseshoe open towards the west. Down the centre flows a perennial stream, the Pandra Naddi, which has been dammed up to form a lake from which the villagers' rice fields are irrigated: further down it descends through a rocky gorge into a valley which winds round below the north face of the plateau, and eventually flows into the Koil at Rud. The sides of the hill are covered in jungle, and there is also a considerable area of reserved forest on the north-west of the plateau itself. Most of the summit is however open

and cultivated, though two small sacred groves, Ghanti Sarna and Otanga Sarna, were left on the northern side as habitations for the spirits of the wood when the forest was originally felled. The hamlet lies on the southern side of the stream : to the west of it is the Government farm, and above it to the east the wooden " Chalet " of the Governor of the Province, the small dispensary, the building occasionally used as a police-station, the two original Government bungalows, the *ghatwali* bungalow, and at the end of the plateau, where the hill road reaches the summit, the bungalow of the Ranchi District Board. Further round, on the extreme verge of the plateau overlooking the valley of the Koil, is the bungalow of the Palamau District Board, and further round still towards the north is a forest bungalow. Close under the reserved forest on the north and not far from what 50 years ago was a tea garden is the small farm of a European lady. On the south Netarhat is joined to the larger plateau of Pakripat by a spur along which runs the road that climbs the hill from below. This road joins the Lohardaga-Marwai road just short of Marwai, and so gives access to Ranchi at all times. The hill can also be scaled on foot from Marwai or Rud, or up the western face from Chhechhari. The temperature of Netarhat is approximately 5 degrees cooler than Ranchi all the year round. By day in the hot weather the climate is hot but fresh, and the nights generally cool. In October the climate is ideal; by Christmas it is cold.

The building on the plateau has very little disturbed the wild life of the hill. Herds of bison may be seen grazing on and around the plateau in the quiet hours of the morning and evening during the hot weather, and within the last three years a tiger has been shot within a few hundred yards of the farm. The holes scraped by bears are a pitfall for unwary riders and *sambar* still haunt the sides of the hill. Netarhat is a place of peculiar charm, which has laid its spell on many casual visitors. The breezy down and the song of the larks by day, and by night the stillness of the jungle and the great constellations swinging slowly overhead bring refreshment after the dust and heat of the plains.

Palamau.—Palamau on the Auranga river, 15 miles south-east of Daltonganj as the crow flies, from which the district takes its name, is for the historian and the archæologist the most interesting place in the district, for it was for many years the seat of the Chero chiefs and it contains the ruins of

the two great forts built by them, the capture of which by the Mughals and later by the British resulted in the collapse of the Chero resistance. The forts lie within the reserved forest, and in order to preserve them the jungle has to be cut back at intervals. They are a favourite haunt of tigers, whose pug marks may nearly always be seen in and around the old fort. The walls, which are in fair preservation, are about 5 feet in thickness, and those of the old fort bear marks of cannon balls and bullets in many places. In the new fort the Nagpuri gate is of great beauty. It is said to have been imported at great expense by Medni Rai, the greatest of the Rajas of Palamau, after he had sacked the palace of the Maharaja of Chota Nagpur; but the side of the fort on which it was erected was declared to be unlucky, and the entrance was bricked up, the carving being left where it was. The gate has now been opened and some of the adjoining masonry has been demolished in order to preserve it. The following account is taken from the Report of the Archaeological Survey, Bengal Circle, for 1903-04 :—“There are two forts at Palamau, inside the jungle, close to each other. They are distinguished by the names of Purana Kila and Naya Kila, although both appear to be of about the same age. The style of the walls and buildings so closely resembles that at Rohtasgarh and Shergarh that both forts may safely be put down at the same time, viz., the beginning of the Mughal period. The old fort is of rectangular shape, about one mile in circumference. The ground upon which it stands rises in terraces. The higher part is divided from the lower one by a cross wall. The walls are in places of considerable thickness, about 8 feet, the pathway on the top between the battlements measuring 5 feet 6 inches. In other places they are thinner. The four gates are strongly fortified with inner and outer courts and provided with watch towers. The outer battlements of the walls are loop-holed. Inside are the remains of four two-storied houses and a mosque with three domes. The inner cross-wall has one gate, in front of which is a deep well cut out of the rocks with a vaulted tunnel leading down to it. The walls are built of stones and concrete, like those at Rohtasgarh and Shergarh. The houses are plastered over, and remains of paintings and stucco ornamentation are seen here and there. In all these respects, the buildings closely agree with those in the other hill forts, already referred to. I observed one statue of a Buddha close to the eastern gate and another broken Hindu or Buddhist idol, but no temple was found by me.

“ The new fort is built around the slopes of a conical hill. There are two lines of walls, each making up a square. The inner line clusters around the peak of the hill; the outer line is somewhat lower down. The walls are of the same kind as in the old fort. The outer walls are of considerable breadth, the passage along the roof between the battlements measuring 14 feet, and the total breadth amounting to 18 feet. There are no separate buildings inside the enclosure, but the walls have galleries, open to the interior, sometimes of several stories. The most interesting object is a fine stone-carved window about 15 feet high. There is nothing to match this either at Rohtasgarh or Shergarh. The carving is distinctly of the Mughal type. Another similar window close to it is broken, and some walls near it also have fallen down and now block up the passage, so that it is difficult to get a view of this excellent piece of carving.”

Palamau Pargana.—The largest of the four *parganas*, occupying the centre and south-west of the district. It was formerly the *raj* of the old Chero Rajas of Palamau, as is explained in chapter XI.

Panki.—A village 28 miles due east of Daltonganj. It is the headquarters of a police station lying on the south bank of the Amanat, and in the village there is also a District Board dispensary and bungalow. The Panki road, which branches off from the Manatu road near Lesliganj, was not bridged at the time of writing.

Patan.—A village 15 miles north-east of Daltonganj, containing a police station. It is joined by road with Daltonganj, but the road is not bridged throughout and crosses that formidable obstacle, the Amanat.

Pundag Tappa.—A *tappa* in the east of the district which roughly corresponds with the jurisdiction of Panki police-station.

Rajhara.—A village and railway station 10 miles north of Daltonganj. Here is situated the oldest colliery of the Bengal Coal Co. which was opened in 1847 but is no longer worked.

Ranka.—A village situated 14 miles south of Garhwa, with which it is connected by a bridged road. Population 2,071. The village contains the *garh* of the proprietors of the Ranka estate, a police station, a District Board bungalow,

and a dispensary founded by the late Raja Gobind Prashad Singh of Ranka. Tradition says that the name of Ranka is derived from the fact that a former proprietor of the estate supported a large number of beggars (*rank*).

The Ranka family is of the Surwar sept of Chandrabansi Rajputs (or Chhatri Chandrabansi Gours), and its present head is Raja Girivar Prashad Singh. He is a descendant of that Puran Mal, the first Diwan of Palamau, who with his descendants played so prominent a part in the history of the district. Like their relatives, the Chainpur family (q.v.), the Thakurais of Ranka have given loyal assistance to the British since the conquest of Palamau. In 1780 Thakurai Shiva Prashad Singh helped Major Crawford in restoring order in the district, and in 1802 he served in the Sirguja campaign under Colonel Jones. For some years he was the virtual ruler of the district and it was with him as manager on behalf of the minor, Churaman Rai, that the decennial settlement was concluded. His grandson, Thakurai Kishun Dayal Singh, rendered good service in the Mutiny of 1857 and was rewarded with the grant of 21 villages, a *khillat*, and the title of Rai Bahadur. The title of Raja was conferred on the late Thakurai Gobind Prashad Singh as a personal distinction in 1907, and the same title was conferred on his son, the present Raja Girivar Prashad Singh, in 1922. The estate extends over rather more than 400 square miles.

Rud.—A small village in the Government estate below the north-east face of Netarhat. There is a forest bungalow here in the valley of the Pandra Naddi, behind which is one of the favourite beats for tiger in the district. Rud lies on the road from Garu to Marwai, but the road is unbridged and impassable in the rains.

Satbarwa.—A village 17 miles from Daltonganj along the Ranchi road. It contains the ruins of some old temples, and is an important trade centre with a weekly market on Wednesdays.

Shahpur.—See Daltonganj.

Sima Tappa.—The *tappa* which lies in the angle formed by the Koil where it changes its course from a northerly to a westerly direction between Rud and Garu. It includes also Netarhat. This is perhaps the most picturesque part of the whole district. A large part of it belongs to the Government estate.

Sirhe Tappa.—The small *tappa* in which Garhwa is situated.

Sonpura.—A village on the south bank of the Son about 3 miles above its junction with the Koil. Population in 1921 1,265, but since then it has decreased as the result of the flood that devastated the village in 1923. In this village is the *garh* of the proprietors of the Sonpura or Dema estate, the present proprietor being Babu Bisambharnath Sahi. The origin of this family, according to family tradition, is traced back to a certain Raja Nar Narayan, who resided at Mahuli in the district of Gorakhpur. Raja Ram Narayan, the 9th of the line, migrated to Shahabad, where he obtained possession of *parganas* Chainpur and Chausa and established his family seat at Tori Bhagwanpur. These *parganas* were granted as a reward for good service to the ancestor of the present Raja of Bhagwanpur by the 11th Raja, Dhavala Pratapa, who then went to Rohtasgarh and ruled there. This is presumably the Raja who is mentioned in the inscriptions at Rohtasgarh and elsewhere referred to at the beginning of chapter II. At the beginning of the 18th century Kindra Sahi, who is said to have been the 50th of the line, acquired the *parganas* of Japla and Belaunja by a *sanad* from the Emperor of Delhi and migrated to Sonpura, where his descendants have resided ever since. The family have records in their possession dating back to the time of the Mughal government and the early days of British rule. When the British force marched into Sirguja in 1801 under Colonel Jones, it was joined by a detachment under Raja Bhup Nath Sahi of Sonpura, and Captain Roughsedge acknowledged his services with the remark that "from beginning to end he fought under me and assisted me in every engagement, accompanied by his own armed men and force". A letter from the Marquis of Wellesley, dated August 1803 shows that the Raja was directed to guard the passes in his estate against any force that might be sent by Raghoji Bhonsla; and some years later he was directed by the Marquis of Hastings to guard them against the Pindaris "displaying his usual zeal and bravery". The family has long since lost the greater part of its estates, and what remains was until recently managed under the Encumbered Estates Act by the Deputy Commissioner. The estate extends over 360 square miles, but much of it is in the hands of *mukarraridars*.

Taleya Tappa.—A *tappa* on the west bank of the Koil, opposite Daltonganj and containing the village of Chainpur.

The northern half is well cultivated, and the southern half is chiefly jungle.

Tappa Tappa.—A small *tappa* between the Ranchi road and Tori Pargana, which includes the village of Latehar.

Tori Pargana.—A *pargana* in the south-east corner of the district, conterminous with the revenue *thana* of Balumath, and including an area of 666 square miles. It forms part of the estate of the Maharaja of Chota Nagpur, by whom it was given, as explained in chapter XI, to his half-brother as a maintenance grant. It was included in the district of Palamau when it was formed in 1892.

Untari.—A village in the north-west of the district, 24 miles by road west of Garhwa. Population in 1921 1,961. It contains a police station, District Board bungalow, and dispensary maintained by the Bhaiya Sahib of Untari, whose *gurd* is also in the village. The *tappa* of Untari occupies the corner between the Kanhar river, the Mirzapur boundary, and the Garhwa-Untari road. The family of the Bhaiya Sahib of Untari is a branch of the Sonpura family of Suryabansi Rajputs, being descendants of an elder wife of the 44th Raja of Sonpura. Her son lost his right to succeed to Sonpura through being absent on a pilgrimage when his father died. On his return he was given an estate in Belaunja with the title of Bhaiya or brother. The third Bhaiya subdued Untari under the orders of the Mughal Emperor at the end of the 17th century and received it from the Emperor as a rent free *jagir*. This grant was confirmed by the British Government a hundred years later. (*See* also chapter XI.) Nagar Untari, to give the village its full title, is an important centre of local trade, with a weekly bazar on Tuesdays and an annual fair in March.

TABLES.

193

TABLE I.

AREA AND POPULATION.

Revenue thanas and police-stations.	Area in square miles.	Number of—		Population.				No. of occupied houses.	Population per square mile.
				1921.		1911.			
		Towns.	Villages.	Persons.	Males.	Females.	Both sexes.		
DISTRICT TOTAL ...	4,916	2	3,120	733,394	367,371	366,023	687,710	138,640	142
SADAR SUBDIVISION ...	3,271	2	2,391	585,837	293,634	292,203	530,505	109,986	179
Daltonganj ...	566	1	481	135,448	67,695	67,753	124,870	25,754	239
Daltonganj ...	...	...	...	78,640	39,431	39,209	...	...	...
Lesliganj ...	...	...	...	29,061	14,446	14,615	...	...	...
Panki ...	...	...	...	27,747	13,818	13,929	...	...	...
Garhwa ...	567	1	380	121,088	61,061	60,927	107,674	22,391	215
Garhwa ...	...	...	...	73,652	36,684	36,968	...	...	...
Untari ...	...	...	...	48,336	24,377	23,959	...	...	...
Ranka ...	611	...	191	44,591	22,804	21,987	47,255	8,949	73
Ranka ...	...	...	...	35,900	18,201	17,699	...	...	...
Bhandaria ...	...	...	...	8,691	4,403	4,288	...	...	...
Chhattarpur ...	338	...	321	50,747	28,795	27,952	48,637	10,042	168
Chhattarpur ...	...	...	...	37,784	19,010	18,774	...	...	...
Haribarganj ...	...	...	...	18,903	9,785	9,178	...	...	...
Patan ...	506	...	497	93,784	49,035	49,749	91,480	18,936	185
Patan ...	...	...	...	37,193	18,334	18,859	...	...	...
Bisrampur ...	...	...	...	27,515	13,607	13,908	...	...	...
Manatu ...	...	...	...	34,076	17,094	16,982	...	...	...
Husainabad ...	683	...	512	128,279	64,444	63,835	110,589	23,014	188
Husainabad ...	...	...	...	69,531	35,024	34,507	...	...	...
Bhaunathpur ...	...	...	...	58,748	29,420	29,328	...	...	...
LATEHAR SUBDIVISION ...	1,645	...	729	147,557	73,737	73,820	157,205	28,654	90
Latehar ...	479	...	270	52,378	26,400	25,978	62,051	10,301	109
Latehar ...	...	...	...	36,178	18,147	18,031	...	...	...
Kerh ...	...	...	...	16,200	8,253	7,947	...	...	...
Balumath ...	686	...	307	67,459	33,459	34,000	72,907	12,999	101
Balumath ...	...	...	...	46,756	23,115	23,641	...	...	...
Chandwa ...	...	...	...	20,703	10,344	10,359	...	...	...
Mahuadanr ...	500	...	152	27,720	13,878	13,842	32,247	5,354	55
Mahuadanr ...	...	...	...	20,914	10,343	10,571	...	...	...
Garu ...	...	...	...	6,808	3,535	3,271	...	...	...

TABLE II.

RELIGION AND LITERACY.

Revenue thanas and police-stations.	Total population	Population by religion.					Literate.	
		Hindus.	Muhammadians.	Christians.	Animists.	Others.	Males.	Females.
DISTRICT TOTAL ...	733,394	617,649	65,002	7,283	43,319	141	19,239	1,063
SADA SUBDIVISION ...	585,837	510,140	56,516	117	18,923	141	16,914	949
Daltonganj ...	135,448	118,483	13,931	101	3,890	43	5,687	335
Daltonganj ...	78,640	69,484	7,684	101	1,333	38	...	...
Lesliganj ...	29,061	26,132	2,156	...	708	5	...	...
Panki ...	27,747	22,867	3,031	...	1,789	...	...	...
Garhwa ...	131,968	100, 19	15,953	...	5,805	11	3,306	91
Garhwa ...	73,052	59,762	11,332	...	2,551	7	...	...
Untari ...	43,336	40,467	4,631	...	3,254	4	...	...
Rauka ...	44,591	35,333	2,493	3	6,762	...	372	31
Rauka ...	35,900	28,737	2,243	3	4,867	...	...	...
Shandaria ...	8,691	6,543	250	...	1,895	...	...	...
Chhattarpur ...	56,747	53,267	3,017	...	453	10	1,110	60
Chhattarpur ...	37,784	35,286	2,037	...	452	9	...	...
Harharganj ...	18,063	17,981	990	...	1	1	...	...
Patan ...	98,784	87,054	9,538	2	1,233	7	2,823	188
Patan ...	37,193	33,269	3,106	2	811	5	...	...
Biswampur ...	27,515	24,953	2,443	...	117	2	...	...
Manatu ...	34,076	29,733	3,089	...	355	...	...	...
Husainabad ...	128,279	114,884	12,584	11	730	70	3,616	244
Husainabad ...	60,531	60,655	8,787	9	34	46	...	...
Bhanupathpur ...	58,748	54,229	3,797	2	698	24	...	...
LATSEAS SUBDIVISION ...	147,557	107,509	3,486	7,166	24,396	...	1,996	66
Latchar ...	52,378	41,192	3,513	36	7,698	...	810	23
Latchar ...	36,178	27,318	2,172	33	6,656	...	...	...
Korb ...	16,200	13,874	1,34	4	982	...	...	...
Balumath ...	67,459	51,512	4,042	48	11,857	...	965	35
Balumath ...	46,756	36,131	3,404	12	7,149	...	...	...
Chandwa ...	20,703	15,381	578	36	4,798	...	...	...
Mahudaur ...	27,720	14,905	932	7,082	4,531	...	221	2
Mahudaur ...	20,914	11,042	750	7,032	2,080	...	...	...
Garu ...	6,806	3,763	182	50	2,811	...	...	...

N.B.—Literate Christians and 'Others' are included in the district total, but not in the subdivisional or thana totals in the last two columns. The only thana total noticeably affected is that of Mahudaur.

TABLE III.
BIRTH AND DEATH RATES AND CAUSES OF DEATH.

	Year.											
	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.
PER MILE OF POPULATION												
Birth rate	49.64	47.84	51.6	48.1	45.4	53.2	50.3	36.2	38.5	34.9	42.1	44.9
Death rate	31.89	24.54	25.4	27.7	31.7	30.5	71.8	36.3	43.9	44.5	29.5	31.7
Survival rate	17.75	23.30	26.2	20.4	13.7	22.7	-21.5	-1	-4.4	-9.6	12.6	13.2
NUMBER OF DEATHS FROM—												
1. Plague .. ..	...	...	9	17	...	24	75	2	5	...	...	2
2. Cholera	1,454	70	391	693	475	24	3,055	1,130	1,724	2,143	131	131
3. Small-pox .. ..	...	22	96	128	120	52	39	469	1,394	721	114	33
4. Fever	15,512	12,372	13,626	13,992	17,115	16,112	40,764	19,505	22,574	24,368	16,271	13,576
5. Bowel complaints	184	81	116	130	137	122	133	155	144	213	33	29
6. Respiratory diseases	13	23	17	11	...	...	19	29	22	10	12	3
7. Injuries	403	344	361	415	363	338	430	412	300	323	236	325
8. Other causes	4,353	3,672	3,916	3,676	3,651	4,394	4,629	3,255	3,200	2,866	3,392	4,145
Total	21,910	16,784	17,432	19,112	21,916	21,016	49,364	24,653	29,429	30,653	20,789	23,213

TABLE IV.

PRICES CURRENT (RETAIL).

(Quantities per Re. 1 in seers of 80 tolas.)

Name of article.	Year.											
	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.
JANUARY 15TH.												
1. Average common rice	S. Ch. 12 6	S. Ch. 9 9	S. Ch. 9 0	S. Ch. 8 7	S. Ch. 8 11½	S. Ch. 9 13½	S. Ch. 9 9	S. Ch. 7 5	S. Ch. 5 10	S. Ch. 6 3	S. Ch. 6 9	S. Ch. 7 5
2. Maize	" 27 0	" 15 12	" 11 13	" 10 15	" 14 1	" 17 7	" 19 2	" 8 7	" 0 12	" 9 8	" 9 0	" ...
3. Gram	" 17 7	" 12 15	" 11 4	" 9 0	" 11 4	" 13 8	" 10 3	" 8 3	" 5 10	" 8 2	" 5 10	" 11 4
4. Salt	" 19 2	" 19 2	" 19 3	" 15 3	" 13 8	" 13 11	" 6 12	" 12 15	" 12 2	" 11 4	" 11 4	" 12 15
JULY 15TH.												
1. Average common rice	" 10 2	" 8 7	" 8 2	" 7 5	" 8 7	" 8 11½	" 10 2	" 5 3	" 5 5	" 5 13	" 6 0	" 7 14
2. Maize	" ...	" 13 8	" 11 4	" 10½ 11	" 13 8	" ...	" ...	" 5 10	" 7 14	" 6 12	" 8 7	" ...
3. Gram	" 14 1	" 14 10	" 10 6	" 11 13	" 12 15	" 15 12	" 10 11	" 5 14	" 7 5	" 6 12	" 7 14	" 12 6
4. Salt	" 16 14	" 13 8	" 13 9	" 14 10	" 13 6	" 11 4	" 12 15	" 13 1	" 9 4	" 7 15	" 11 4	" 9 0

N. B.—The salt quoted is *pungu*, except where the figures are in italics, in which case it is rock.

TABLE V.

LIST OF MARKETS.

(Held weekly except as shown otherwise in column 3.)

Police-station.	Village in which held.			Day of week.
1	2			3
Daltonganj	...	Adar	...	Monday.
		Chainpur	...	Saturday.
		Chando	...	Thursday.
		Chunga Bausdih...	...	Sunday.
		Daltonganj	...	Wednesday.
		Dhawa	...	Sunday.
		Hutar	...	Tuesday.
		Khura	...	Wednesday.
		Pathra	...	Sunday.
		Polpol	...	Tuesday.
		Salatua	...	Monday.
		Satbarwa	...	Wednesday.
Lesliganj	...	Bhakasi	...	Monday.
		Dhanganu	...	Friday.
		Haratua	...	Tuesday.
		Lesliganj	...	Sunday.
		Ramsagar	...	Tuesday.
		Tenar	...	Saturday.
Panki	...	Duwarika	...	Saturday.
		Harlaung	...	Wednesday.
		Kunwai	...	Saturday.

TABLE V—*contd.*

Police-station.	Village in which held.	Day of week.
1	2	3
Panki— <i>concl'd.</i>	Nawagarh	Monday.
	Panki	Friday.
	Tetrain	Tuesday.
Garhwa	... Banda	Friday.
	Garhwa	Thursday, Friday and Saturday.
	Jarhi	Friday.
	Lakhna	Saturday.
	Meral	Sunday.
	Nawadih	Saturday.
	Obra	Sunday.
	Peska	Wednesday.
	Sonehara	Saturday.
Untari ...	... Bishunpura	Monday.
	Dharki	Friday.
	Nagar Untari	Tuesday.
	Ramna	Wednesday.
Ranka ...	... Bhauri	Sunday.
	Chinia	Tuesday.
	Kanjra	Monday.
	Puregara	Do.
	Ramkanda	Tuesday.
	Ranka	Tuesday and Saturday.
	Ranpura	Monday.
	Sewadih	Sunday.

TABLE V—*contd.*

Police-station.	Village in which held.			Day of week.
1	2			3
Bhandaria ...	Bargarh ...	...	...	Sunday.
Chhattarpur ...	Chhattarpur ...	...	...	Tuesday.
	Kerki ...	...	...	Wednesday.
	Naudiha ...	...	...	Saturday.
	Saraidih ...	...	...	Thursday.
	Susiganj ...	...	...	Friday.
Hariharganj ...	Hariharganj ...	...	...	Monday and Friday.
	Pipra ...	...	...	Wednesday.
Patan ...	Churadohar ...	...	...	Sunday.
	Dulhi ...	...	...	Friday.
	Imli ...	...	...	Do.
	Janghesi ...	...	...	Wednesday.
	Kariahar ...	...	...	Tuesday.
	Kishunpur ...	...	...	Saturday.
	Lamipatra ...	...	...	Sunday.
	Nawa ...	...	...	Tuesday.
	Palbe ...	...	...	Monday.
	Patan ...	...	...	Thursday.
	Sole ...	...	...	Do.
Bisrampur ...	Bisrampur ...	...	...	Sunday.
	Gurha ...	...	...	Tuesday.
	Nawa ...	...	...	Wednesday.
	Rajhara ...	...	...	Sunday.
	Sigsigi ...	...	...	Saturday.

TABLE V—*contd.*

Police-station.	Village in which held.			Day of week.
1	2			3
Manatu	Chak	...	Wednesday.
	...	Kasmar	...	Monday.
	...	Korda	...	Tuesday.
	...	Loharsi	...	Wednesday.
	...	Manatu	...	Do.
	...	Padma	...	Monday.
	...	Tarhasi	...	Thursday.
Husainabad	...	Dangwar	...	Monday and Friday.
	...	Haidarnagar	...	Tuesday.
	...	Husainabad	...	Sunday and Thursday.
	...	Koshiara	...	Saturday.
	...	Muhammadganj	...	Sunday.
	...	Panra	...	Thursday.
	...	Poldih	...	Sunday and Wednesday.
Bhaunathpur	...	Arsali	...	Thursday.
	...	Bardiha	...	Sunday.
	...	Kanri	...	Friday.
	...	Ketar	...	Do.
	...	Kharaundha	...	Thursday.
	...	Kharaundhi	...	Saturday.
	...	Kushaha	...	Tuesday.
	...	Majhiaon	...	Wednesday.
	...	Morbay	...	Saturday.

TABLE V—*contd.*

Police-station.	Village in which held.			Day of week.
1	2			3
Latehar	...	Barwaia	...	Sunday.
		Koili	...	Friday.
		Korid	...	Thursday.
		Latehar	...	Tuesday.
		Manika	...	Friday.
		Namudag	...	Monday.
		Nawagarh	...	Saturday.
		Zalim	...	Monday.
Kerh	...	Barwadih	...	Friday.
		Kerh	...	Tuesday.
		Lat	...	Friday.
		Nawadih	...	Thursday.
		Pokhari	...	Saturday.
Balumath	...	Balubhang	...	Saturday.
		Balumath	...	Tuesday.
		Balunagar (Balu)	...	Saturday.
		Bariatu	...	Monday.
		Chiru	...	Do.
		Herhanj	...	Sunday.
		Holang	...	Wednesday.
		Latu	...	Do.
		Murpa	...	Thursday.
		Murup	...	Do.

TABLE V—*concl'd.*

Police-station.	Village in which held.		Day of week.
1	2		3
Balumath— <i>concl'd.</i>	Patratu	...	Wednesday.
	Phulsu	...	Thursday.
	Serandag	...	Wednesday.
	Seregara	...	Sunday.
	Sibla	...	Wednesday.
Chandwa	Bharila (Sasang)	...	Sunday.
	Chakla	...	Monday.
	Chetar	...	Wednesday.
	Haraya (Chandwa)	...	Friday.
	Loharsi	...	Tuesday and Saturday.
	Rampur	...	Thursday.
Mahuadanr	Gothgaon	...	Friday.
	Mahuadanr	...	Monday.
Garu	Sarju	...	Friday.

INDEX

A	PAGE.	B	PAGE.
Aboriginals	60	Babuan	29
Administration of justice	166	Baiga, the	46
Agarias	187	Baiparis	141
Aghani crop	97	Balumath	152, 175
Agricultural labourers	186	Bamboos	87, 183
Agricultural population, Resources of	126	Bamboos, transport of	8, 150
Agricultural stock	106	Bandhs	93
Agriculture	92	Bank, co-operative	129
Agriculture, persons occupied in	186	Bank, savings	151
Agriculturists' loans	105	Banki river	9
Ahars	93	Barahazar	21, 61
Ahirs	56	Baresanr	81, 176
Alinagar	175	Baresanr tappa	176
Amanat river	9	Bargarh	176
Amhar tappa	175	Bari tappa	176
Animals, wild	12	Barkol tappa	176
Animism	51	Barley	99
Animists	51	Batai	125
Arboriculture	90	Bathans	106
Area of cultivation	92	Bauxite	140
Artisans, wages of	182	Bazaars	142, 197
Arts	142	Begari	134
Assessment to local cess	161	Beggars	142
Assessment, municipal	171	Belaunja	40
Assessment of rent, systems of	121	Belaunja pargana	159, 176
Atharahazar	21	Beora cultivation	104
Auranga coalfield	140	Betla	81, 92
Auranga river	9	Bhadai crop	97
		Bhagwat Rai	22
		Bhaiya Sahib of Chcheck- hari	179

	PAGE.	C	PAGE.
Bhaiya Sahib of Untari	192	Calamities, natural	107
Bhandaria	176	Camac, Captain	29
Bhaoli system	124	Carts, bullock, no. of	149
Bhaunathpur	176	Cash rents, <i>see</i> Rents.	
Bhogtas	35, 58	Castes	55
Bhojpuri dialect	45	Catechu	132
Bhuinhars	63	Catechu, manufacture of	143
Bhuiyas	55	Cattle	106
Bijka hill	5	Cement works	140
Birds	15	Census	42
Birjias	64	Cess, local	165
Birjias, dialect of	45	Cereals	100
Bir Kuar	55, 56	Chainpur	40, 177
Birth-rate	71	Chainpur, Rajas of	178
Bisrampur	177	Chamars	59
Bisrampur estate	31	Chandwa	178
Blindness	76	Chaukidars, village	167
Board, District	169	Chero Raj	22, 153
Boards, Union	170	Chero Rajas	22
Bohla bazaar	142	Cheros	35, 61
Botany	12	Cheros, history of	20
Boundaries of district	2	Chhattarpur	178
Bowel complaints	75	Chhattisa system of rent assessment	121
Brahmans	59	Chhattigarhi dialect	45
Bridge, settlement of Mr.	155	Chhechhari	2, 6, 53, 118
British, first intervention of	29	Chhechhari, B h a i y a Sahib of	179
British, conquest by	30	Chhechhari tappa	179
Buha system	108	Cholera	75
Bullock carts, no. of	149	Chota Nagpur, Maharaja of	160
Burha Pahar	6	Christian missions	53
Burhi Naddi	8	Christians, no. of	53
Bus services	150	Churaman Rai	31, 153
Business	141		
Business, places of	142		

	PAGE.		PAGE.
Church, Mahuadanr	54, 185	D	
Church of Christ mission	54	Dacoities	166
Civil courts	167	Daha system of cultivation	101
Classification of land	95	Daltonganj	1, 40, 179
Climate	15	Daltonganj coalfield	139
Coalfields	10, 139	Daltonganj municipality	170
Coalfields railway	150	Danabandi	125
Coal-mining	138	Danro river	9
Cocoons, silk	132, 145	Daud Khan	25
Colliery, Rajhara	139, 189	Davidson, settlement of Dr.	154
Commerce	141	Death-rate	71
Communications	88, 129, 146	Decennial settlement	31, 153, 157
Communications by water	150	Dehon, Father	53, 185
Commutation of produce- rents	126	Dema	176
Conquest by British	30	Density of population	43
Conquest by Cheros	21	Deo, Raja of	33, 153
Conquest by Muhamma- dans	25	Deogan	180
Co-operative movement	129	Deogan estate	31
Copper	140	Dhankhet	95
Cotton	101	Dhurki	180
Cotton-weaving	136	Diarrhoea	75
Council, Legislative, representation in	171	Dihwar, the	48
Courts, civil and criminal	166, 167	Diseases	73
Crime	166	Dispensaries	76
Criminal courts	166	District board	169
Crops, areas under different	96	Divisions of district	152
Crops, principal	98	Dosadhs	59
Cultivation, area of	92	Dress	68
Cultivation, beora	104	Drinking water	75
Cultivation, extension of	104	Durjag tappa	180
Culturable waste	92	Duthu tappa	181
Cutch	132	Dysentery	75
Cutch, manufacture of	143		

E	PAGE.		PAGE.
Education	172	Forbes, settlement of Mr.	154
Education by religion	174	Forced labour	134
Education, female	173	Forest administration	85, 163
Education, Inspectors of . . .	174	Forest villages	89
Education, persons occupied in	142	Forests	78, 163
Educational institutions . . .	172	Forests, private	79, 90
Elections to Legislative Council	171	Forests, protected	83
Elections, District board . . .	169	Forests, reserved	79
Elections, municipal	170	Forests, zamindari	79, 90
Elections, Union board	170	Fort at Alinagar	175
Emigration	43	Fort at Palamau	188
Encumbered estates	161	Fort at Tamolgarh	6
Epidemic, influenza	71, 118	Frost	16, 36
Estate, Government	154, 156, 163	Fruits	102
Estates, Encumbered	161	Fruits, jungle	103
Excise	164	Furniture	68
Exports	141		
Extension of cultivation	104	G	
Eye, diseases of	76	Gajraj Rai	30, 177
F		Game-birds	15
Fair rent settlement	122	Ganja, consumption of	164
Fairs	142	Garhwa	142, 181
Famines	107	Garhwa road station	141
Fauna	12	Garu	182
Female education	173	Geology	9
Ferries	149	Ghansham Singh	33, 153
Feudal system	128, 134	Ghatwals	167
Fever	73	Girls' schools	173
Fireclay, Rajhara	139	Goalas	56
Fish	15	Goawal tappa	182
Flood, Son	119	Gopal Rai	29, 153
Food	69	Goralatka	186
		Government Estate	154, 156, 163

	PAGE.		PAGE.
Government Estate, settlement of fair rents in	124	Hutar	183
Government Estate, staff employed in	156, 163	Hutar coalfield	139
Government, Local Self	169		
Graham, Lieut.	36	I	
Gram	99	Ijaradars	157
Graphite	140	Immigration	43
Grazing	106	Imports	141
Gurus, training of	173	Incidence of rent	122
		Income-tax	165
H		Indebtedness	130
Haidarnagar	182	Industry, persons occupied in	136
Handlooms	137	Infirmities	71
Hand-weaving	136	Influenza epidemic	71, 118
Hargarhwa channel	94	Inspectors of education	174
Hariharganj	182	Institutions, educational	172
Hartaki, system of rent assessment	122	Instruction, persons occupied in	142
Hathiya rains	18, 93	Invasions of British	29
Health, public	71	Invasions of Cheros	21
Herhanj	182	Invasions of Muhamma- dians	23
Hides	141	Iron-workers	137
High school	173	Irrigated area	94
Hills	5	Irrigation	93, 129
Hindi language	45		
Hinduism, popular	46	J	
Hindus	46	Jagirdars	31, 153, 156, 158
History	19	Jail, Daltonganj	168, 180
Honorary magistrates	166	Jaipur	183
Hospitals	76	Japla	40, 159, 183
Hostels	174	Japla cement works	140
Hot springs	11	Japla pargana	159
Houses	65	Jesuit mission	53, 185
Humidity	18	Jolahas	52
Husainabad	183	Jungle	78
		Jungle fruits	103, 107
		Justice, administration of	166

K	PAGE.		PAGE.
Kahars	59	Kundri lac farm	87
Kala-azar	74	Kutku	2, 8, 184
Kamias	132		
Kanhar river	8	L	
Kanri	183	Labour, forced	134
Kanwadari system of rent assessment	121	Labour supply	89, 136, 142
Karanpura coalfield	140	Labour, wages of	132
Kararbar channel	94	Labourers, agricultural	136
Kararbar river	9	Labourers, general	142
Kath	132, 143	Lac	97, 128, 131, 111
Kechki	81, 87, 150, 183	Lac-bearing trees	144
Kerh	184	Lac, cultivation of	87, 128, 144
Khair trees	132, 143	Lac farm	87
Khaira hill	5, 184	Lac, manufacture of	145
Khaira tappa :	152, 176, 184	Lac rents	131
Khairatdars	158	Ladi	184
Kharwars	19, 57	Land, classification of	95
Khas Mahal, <i>see</i> Govern- ment Estate.		Land Improvement Loans	105
Khorposhdars	158	Land revenue	165
Killa, Palamau	188	Land revenue adminis- tration	152
Kitai system of rent assessment	122	Landlords, relations of, with tenants	123
Koa	132, 145	Language	45
Koil river	2, 6, 8, 150	Lat	184
Koiris	60	Latehar	184
Kol rebellion	34	Latehar hill	5
Koranda	34	Latehar subdivision	163
Korwas	62	Law, profession of	142
Kot	184	Legislative Council, representation in	171
Kot tappa	184	Leslie, Mr.	31, 153, 157, 185
Kotam hill	6	Lesliganj	35, 185
Kumandih	6, 83, 184	Licences, excise	164

	PAGE.		PAGE.
Literacy	172	Medical institutions	76
Litigation	166	Medical practitioners	142
Loans	105	Medical statistics	71, 195
Local cess	165	Medni Rai	22, 188
Local Self-Government	169	Middle schools	173
Looms	186	Migration	43
M		Minerals	10, 137, 140
Magahi dialect	45	Mines, coal	138
Mahajans, <i>see</i> indebtedness.		Mission, Church of Christ	54
Maharaja of Chota Nagpur	160	Mission, Jesuit, at Mahuadanr	53, 185
Mahtos in Government Estate	156	Money-orders	151
Mahua	88, 102, 115	Motor services	150
Mahua trees	130	Muhammadganj	150
Mahuadanr	185	Muhammadan invasions	23
Mahuadanr mission	53	Muhammadan rule	27
Mahuadanr, settlement of fair rights in	123	Muhammadanism	52
Maize	99	Muhammadans	52
Makai	99	Muhammadans, education of	174
Malaria	73	Mukarraridars	159
Mals	21	Mundas	63
Manatu	185	Mundas, dialect of	45
Manatu, Mawar Sahib of	186	Municipal water-supply	171
Mankah	40, 185	Municipality, Daltonganj	170
Mankeri tappa	186	Munsif	167
Manufacture of cutch	143	Mutiny, Indian, of 1857	35
Manufacture of lac	145	N	
Markets	142, 197	Nagar Untari	186
Marua	100	Nagesias	64
Material condition of population	126	Nagpuria dialect	45
Mawar Sahib of Manatu	186	Namudag	60
Means of communication	146	Narayanpur	186
		Natural calamities	107

	PAGE.		PAGE.
Navigation	8, 150	Pargana Tori	160, 165, 192
Nawa	186	Parganas, the four	3, 152
Nawabs of Japla	28, 159	Parhaiyas	64
Netarhat	3, 90, 186	Pariadari system of rent assessment	121, 154
Night schools	173	Parry, Mr.	32
Nilambar Sahi	35	Pasturage	106
O		Patan	189
Occupancy raiyats	126, 129	Pattidari system of rent assessment	121
Occupations	136	Physical features	2
Offices, post	151	Pitambar Sahi	35
Offices, telegraph	151	Plague	76
Oilseeds	100	Police administration	167
Ojha, the	49	Police-stations	152, 163
Omnibus services	150	Population, agricultural, resources of	126
Opium	164	Population, density of	43
Oraons	60	Population, variation of	42
Oraons, history of	19	Post offices	151
Orders, money	151	Pratap Rai	22, 23, 24
P		Prices	134
Palamau, formation of district of	40	Primary schools	173
Palamau Fort	22, 24, 26, 30, 188	Principal crops	98
Palamau, name, origin of	1	Produce-rents	124
Palamau pargana	153, 189	Produce-rents, commuta- tion of	126
Palamau pargana, re- sumption of	34	Professional classes	142
Palamau pargana, sale of	32	Protected forests	83
Palas trees	4, 12, 87, 144	Public health	71
Panki	189	Pundag tappa	189
Paras, <i>see</i> Palas.		Puran Mal	22, 177, 190
Pargana Belaunja	159, 176	R	
Pargana Japla	159, 183	Rabi crop	97
Pargana Palamau	153, 189	Railway stations	150

	PAGE.		PAGE.
Railways	150	Rents, settlement of fair, in Government Estate	124
Rainfall	16	Rents, settlement of fair, in Mahuadahr	123
Raiyats	126	Reserved forests	79
Raiyatwari settlement	154, 161	Revenue	164
Raj, Chero	22, 153	Revenue, land	165
Raja Churaman Rai	31, 153	Revenue, land, adminis- tration	152
Raja Ghansham Singh of Deo	33, 153	Revenue-paying estates	158, 165
Raja Medni Rai	22, 188	Revenue-free properties	158, 165
Rajas of Chainpur	177	Rice crop	98
Rajas of Palamau	22, 153	Rice land	95
Rajas of Ranka	190	Rinderpest	106
Rajas of Sonpura	27, 159, 191	Rivers	6
Rajhara	36, 150, 189	Road-borne trade	141
Rajhara colliery	189	Roads	146
Rajhara fireclay	139	Roads, forest	88
Rajputs	59	Roads, principal	147
Ramandag	81	Roots, edible	103
Ramgarh collectorate	34	Roughsedge, Captain	32
Ranka	40, 189	Rud	190
Rate, birth	71	Ruins at Alinagar	175
Rate, death	71	Ruins at Palamau	187
Rates of rent	122, 155		
Registration of births and deaths	71	S	
Registration offices	166	Sabai grass	88
Religion	46	Sadabah channel	94
Religion, education by	174	Sadr subdivision	163
Religion, persons occupied in	142	Sadri dialect	45
Rent, rates of	122, 155	Saidope	81
Rent, system of, asses- ment	121	Salt	135, 141
Rent of trees	130, 155	Sarabdaha river	9
Rents, produce	124	Sarwat	176
Rents, settlement of fair	122	Satbarwa	190

	PAGE.		PAGE.
Savings bank	151	Soapura, Rajas of	27, 159
Scarcity	107	Spirit, consumption of	164
Scenery	3	Staff, district	163
Schools	172	Stamps	165
Schools, girls'	173	Stations, police	152, 167
Schools, night	173	Stations, railway	150
Schools, primary	173	Statistics, vital	71
Schools, secondary	173	Stock, agricultural	106
Schools, training	173	Subdivision, Latchar	163
Sciences	142	Subdivision, Sadr	163
Secondary schools	173	Sub-jail	168, 179
Settlement, decennial	81, 153	Sub-Judge	167
Settlement of Mr. Bridge	155, 161	Sugand Rai	30, 180
Settlement of Dr. David- son	154	Sugarcane	100
Settlement of Mr. Forbes	154	Sunder, settlement of Mr.	155
Settlement of Mr. Sunder	155	Supply of labour	80, 136, 142
Settlement of fair rents	122		
Settlement, raiyatwari	154, 161		
Settlement, Survey and, 1913-20	155, 161		
Shahpur	180, 190		
Shaista Khan	23		
Shiva Prashad Singh	81		
Silk, raising of	132, 145		
Sima tappa	190		
Sirguja	2, 32, 34, 141, 142, 148		
Sirhe tappa	191		
Small-pox	76		
Smelting of iron	137		
Soils	95		
Son flood	119		
Son river	7		
Sonpura	119, 191		
Sonpura estate	159		

	PAGE.		PAGE.
Tappa, Tappa	192	Trees, lac-bearing	144
Tappa, Untari	192	Trees, mahua	130
Tappas	152	Trees, rent of	130, 155
Tahleh river	9	Tribes	55
Tahsildars in Govern- ment Estate	156	U	
Taleya tappa	191	Udwant Ram	29, 132
Tamolgarh fort	8	Union boards	170
Tanr	96	Unions	170
Tax, income	165	Union at Garhwa	170, 181
Tej Rai	24	Union at Hussainabad	170, 183
Telegraph offices	151	Untari	192
Temperature	18	Untari, Bhaiya Sahib of	192
Tenants, relation of, with landlords	128	Untari estate	159
Tenures, kinds of	158	Untari tappa	192
Tenures in Palamau pargana	156	Upland	96
Tenures in Palamau, final orders	158	Urban population	44
Thakurais	29, 80, 177, 190	Uttakari system of rent assessment	122
Thanas, revenue and police	152, 163	V	
Thikedars in Govern- ment Estate	154	Vaccination	76
Tori pargana	100, 165, 192	Vegetables	102
Towns	44	Vegetation	12
Trade	141	Veterinary relief	106
Trade centres	142	Village Administration Act	170
Trade by road	141	Village chaukidars	167
Transport	141	Villages	44, 65
Transport by rail	150	Villages, forest	89
Transport by river	8, 88, 150, 184	Vital statistics	71
Transport by road	88, 141, 146	W	
Trees, customs regard- ing	130	Wages	132
Trees, khair	132, 143	Water, communications by	8, 88, 150, 193

	PAGE.		PAGE.
Water-supply	75	Winds	16
Water-supply, municipal	171	Witchcraft	46, 49
Weaving	136	Women, education of	172, 173
Wells	75, 93	Wool-weaving	136
Wheat	99	Z	
Wild animals	12	Zabardast Khan	24
Wild animals, deaths from	12	Zamindari forests	79, 90
		Zilla school	173